DEVELOPMENT OF A TEACHING MODULE FOR ADVANCED PRACTICE NURSES THE EMOTIONAL ASPECTS OF INFERTILITY: COPING AND COUNSELING STRATEGIES

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By

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ABSTRACT

DEVELOPMENT OF A TEACHING MODULE FOR ADVANCED PRACTICE NURSES THE EMOTIONAL ASPECTS OF INFERTILITY: COPING AND COUNSELING STRATEGIES

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Infertility is a common occurrence, and the incidence is on the rise. One of five couples will experience fertility problems. While health care providers have made great progress in diagnosing and treating the physical aspects of infertility, there continues to be a need identified by infertility patients to address the emotions associated with the diagnosis of infertility.

Couples describe their experiences with the health care system as negative and cite a lack of caring by health care professionals when dealing with their infertility. The problem is that health care professionals provide inadequate counseling for couples experiencing infertility. This leads to many couples having maladaptive responses to infertility, including marital instability, sexual dissatisfaction, and ineffective coping. The Advanced Practice Nurse (APN) is a health care professional who can strengthen the support for the psychosocial issues of infertility and influence an adaptive response to the diagnosis of infertility.

The purpose of this project is to develop a teaching module for APNs to use to teach other APNs about the emotional aspects of infertility. The teaching module

identifies the common emotions of infertility; surprise, denial, anger, isolation, guilt, and grief. Coping and counseling strategies aimed at decreasing the emotional distress of infertility included in the module are: normalizing feelings; validating feelings; giving and seeking information; promoting effective communication between couples, families, and health care providers; support groups; and relaxation and guided imagery. The expected outcome in counseling when using the strategies taught in the module is that the couple will be able to redefine their meaning of infertility and have an adaptive response to the diagnosis of infertility.

This project has implications for the APN in practice, education, and research. The teaching module is based on the teachings of two cognitive theorists, Robert Gagne and David Ausubel. It is hoped that the APN who incorporates the contents of this project into one's own practice will have a positive impact on a couple's infertility experience. Couples who receive adequate emotional support will have an increased likelihood of an adaptive response to the diagnosis of infertility.

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INTRODUCTION

Background

Infertility is a complicated problem for men and women, fraught with many underlying issues that are perceived as stressful to infertile couples. The invasiveness of diagnostic tests has been described as threatening and embarrassing by patients (Keye, 1984). The costs of diagnosis and treatment, time lost from work, and side effects from medication have all been described as stressful by infertility patients (Mahlstedt, 1985). Ethical issues, such as the possibility of aborting multiple fetuses after the use of artificial means of conception, also add to the stress of infertility treatment. While the author recognizes the importance of these aspects of infertility and the impact that they have on decisions to initiate treatment and stop treatment, the scope of this paper will focus on the emotional responses that couples have to the diagnosis of infertility.

Infertility is a common occurrence, and the incidence is on the rise. More than 10 million American couples will experience infertility, which translates into one of every five couples experiencing fertility problems (Phipps, 1993).

Several reasons account for the increasingly common infertility experience. Factors such as delays in marriage and childbirth, increased use of contraceptives, exposure to harmful environmental agents, sexually transmitted diseases, and abortion all may have an indirect effect on fertility (Phipps, 1993). Also, as the awareness of infertility increases, more couples are seeking medical attention to help treat their formerly private problem (Davis & Dearman, 1991).

Of the couples that seek treatment for fertility problems, 40% will be diagnosed with a female etiology, 40% with a male causative-factor, and 20% of fertility problems are a result of variances in both partners or of an unknown origin (Eunpu, 1995). While health care providers have become adept at diagnosing fertility problems, there continues to be a need identified by the couples experiencing fertility difficulties to address the emotions associated with the diagnosis of infertility (Imeson & McMurray, 1996; Phipps, 1993; Woods, Olshansky, & Draye, 1991).

Infertility is viewed by most couples as a life crisis (Collins, Freeman, Boxer, & Tureck, 1992; Imeson & McMurray, 1996; Phipps, 1993). "Similar to other crises, infertility is characterized by a psychological disequilibrium that has some common emotional reactions, and proceeds through a process to resolution - be it adaptive or maladaptive." (Frank, 1984, p. 19). The emotions identified most often in

the literature are similar to those of the grief process; shock, denial, isolation, anger, guilt, grief, and acceptance/resolution (Imeson & McMurray, 1996; Phipps, 1993). A healthy resolution may lead to the couple considering other alternatives such as adoption, artificial insemination by donor, or remaining childless (Myers & Wark, 1996) whereas maladaptive responses to infertility include decreased sexual satisfaction, marital disturbances, and psychological distress (Olshansky, 1996). The process of resolution requires that each of the emotions felt are recognized, worked through, and overcome (Menning, 1980).

In the literature, couples experiencing infertility identify a need for more support from health care professionals to deal with the emotional aspects of infertility. Participants in a study by Imeson and McMurray (1996) cited lack of information, poor quality of support, and negative treatment by health care professionals (pp. 1017-1018). Woods, Olshansky, and Draye (1991) asked women undergoing treatment for fertility what was most stressful for them and received responses of the "negative, disease-modeled approach in the clinic" and a "lack of caring about the issue" (p. 185). In response to patients' needs, this project was designed to develop a teaching module for APNs to use to educate other APNs about the emotions of infertility and methods of coping and counseling to use in practice.

Problem Statement

The problem, as stated in the literature, is that health care professionals provide insufficient counseling for couples experiencing infertility, therefore many couples have maladaptive responses to infertility, often resulting in marital instability, sexual dissatisfaction, and ineffective coping (Olshansky, 1996). Although the reasons for lack of counseling have not been identified in the literature, suggestions can be made as to the cause. As patients noted, a negative aspect of infertility treatment is the disease-modeled approach. Infertility treatment is about diagnostic tests and procedures, and patients are confronted with a lack of caring. Perhaps health care professionals don't realize the emotional impact that infertility has on patients.

Another possible reason for the lack of counseling for infertile couples may be the health care system. Key words such as cost containment and managed care have influenced the way in which many health care professionals practice. Reimbursement for services has become an integral part of the decision making process in health care. Counseling services are sometimes difficult to bill, and this may impact on the amount of emotional support that infertility patients receive (Canterbury, 1996).

The new approach to health care also has a great interest in outcomes. How does what we do or don't do impact the outcome? Studies show that many infertility

patients experience negative outcomes. Responses such as marital and sexual dysfunction and ineffective coping are possible outcomes after undergoing infertility treatment (Olshansky, 1996). One can propose that a counseling intervention will positively affect the outcome of infertility treatment for couples. Positive responses to infertility may include considering adoption, artificial insemination by donor, or remaining childless and finding fulfillment in other aspects of life (Myers & Wark, 1996).

The APN is a health care professional who can strengthen the support for the psychosocial issues of infertility. The APN's practice is based on the holistic nursing model. APNs are able to draw from theoretical frameworks for loss and grief, in order to intervene in the emotional aspect of infertility and influence a positive outcome to the diagnosis of infertility.

Purpose Statement

The purpose of this project is to develop a teaching module for the advanced practice nurse (APN) working in a family or women's health setting to use in counseling patients experiencing infertility. The teaching module will serve to educate the APN about the incidence of infertility, the common emotions associated with infertility, and specific counseling and coping strategies to use. The goal of the module is to teach the APN about the emotions associated with infertility, so that the APN can intervene

in the emotional crisis and potentially effect the outcome in a positive way.

The teaching module will include these common emotions of infertility; surprise, denial, anger, isolation, guilt, and grief. The counseling and coping strategies aimed at decreasing the emotional distress of infertility will include normalizing and validating feelings; giving information; promoting communication between couples, family, and health care professionals; support groups; relaxation and guided imagery; and redefining the meaning of infertility.

The content of the module will be preceded by an outline and learning objectives, and each section will be followed by study questions. Using the knowledge learned from the teaching module, the APN can utilize specific coping and counseling strategies to guide the couple through the crisis they experience following the diagnosis of infertility.

Conceptual Framework

Infertility is closely tied to the concepts of grief, loss, and crisis; therefore grief, loss, and crisis theories are easily applicable to the concept of infertility. When the APN provides infertility counseling, one of the related theories should be used to guide the interventions. While a theory such as the Double ABCX Model of Crisis Intervention is useful when working with patients (Plunkett, Sanchez, Henry, & Robinson 1997), a learning theory is more

appropriate to use for interventions aimed at providers. The proposed teaching module will be based on concepts from two cognitive learning theorists, Robert Gagne and David Ausubel.

David Ausubel's Theory of Meaningful Learning (1963) comes from the perspective of cognitive learning theory, where the learner is viewed as a highly active part of the learning process. Taking the transmission view of the cognitive approach to learning, Ausubel emphasizes that the teacher's responsibility is to present material in ways to encourage students to make sense of it by relating it to what they already know (Good & Brophy, 1995).

Robert Gagne is well known for his work using learning hierarchies. Gagne postulates that learning should be ordered from simple to complex in such a way that new learning combines or builds on simpler learning (Good & Brophy, 1995).

The proposed teaching module will contain counseling and coping strategies familiar to an APN, and it will teach the APN to apply the concepts to counseling infertile couples. The information presented in the module will be organized from simple to complex ideas, as supported by Gagne.

Conceptual Definitions

Cognitive theorists define **learning** as, "the acquisition or reorganization of the cognitive structures through which we process and store information" (Good &

Brophy, 1995). David Ausubel described **meaningful reception learning** as learning from instruction, where the content of the information is communicated in its final form. Contrasting meaningful learning with rote memorization, Ausubel contends that meaningful learning occurs more easily because the information can be related to prior knowledge of the learner (Good & Brophy, 1995). He also postulates that reception learning is retained longer, can be better integrated with other knowledge, and is more readily available for application than memorization (p. 182). The proposed teaching module will encourage meaningful reception learning by applying prior knowledge of counseling skills and coping strategies to a new arena; infertility.

Ausubel emphasized that learned knowledge should be able to be transferred to new contexts. A **lateral transfer** involves applying knowledge learned in one domain to facilitate learning in another domain. A vertical transfer occurs when acquired knowledge of lower-level skills is applied to facilitate learning higher-lever skills (Good & Brophy, 1995). The knowledge gained by the APN from the teaching module should prove useful in other counseling situations in primary care.

An assumption of Ausubel's Theory of Meaningful Learning is that, "knowledge is organized into hierarchical structures in which subordinate concepts are subsumed under higher-level superordinate concepts" (Good & Brophy, 1995, p. 182). In effect, this means that even if the details are

forgotten, the key ideas are remembered and the structure itself is retained. In Ausubel's theory, the structure supports the retention of knowledge and acts as a framework for interpreting new related knowledge. While Gagne most often applied learning hierarchies to intellectual learning, this hierarchical structure of learning can also be applied to cognitive learning (Good & Brophy, 1995), as it is in the proposed teaching module for infertility (Figure 1).

Progressing from simple to more complex, the module will begin with a definition of infertility. The Merck Manual (1992) defines infertility as, "the inability to achieve a pregnancy after a year of regular sexual relations without the use of contraception, or to carry a pregnancy to live birth". This definition does not address the psychosocial component of infertility at which the teaching module is designed to impact. Therefore, for purposes of the teaching module, infertility will be defined as a situational crisis involving an intangible loss that goes unrecognized by society, accompanied by feelings of denial, anger, isolation, guilt and grief. After defining infertility, the common emotions of infertility will be identified. Following that section, counseling and coping strategies will be presented. It is at this point in the module that the interventions by the APN will impact the emotions that couples feel and potentially have a positive effect on the outcome to the crisis of infertility. The end-point of the teaching module is the couple's

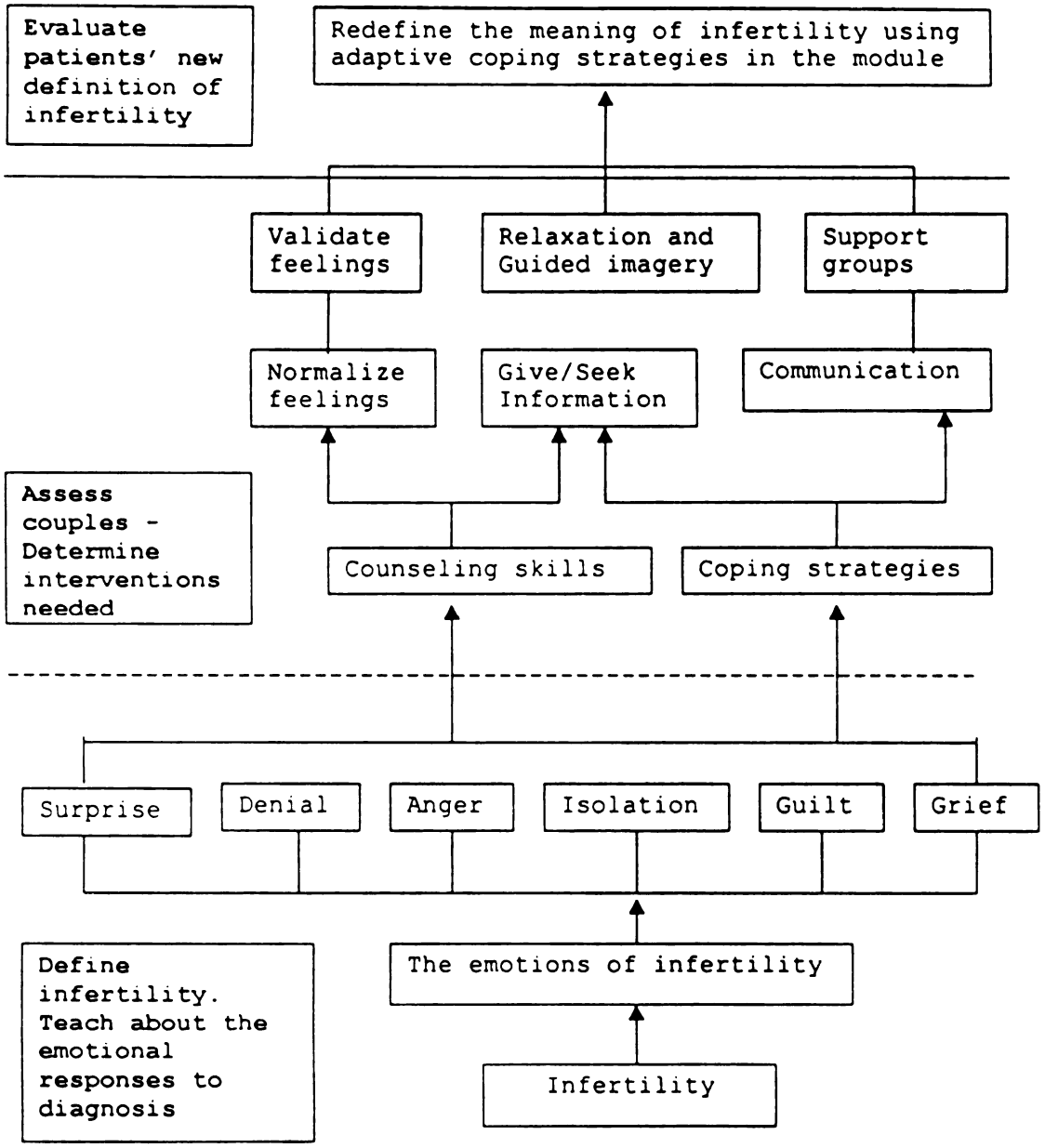

Figure 1. Application of a learning hierarchy to the concept of infertility designed for a teaching module for the APN.

redefinition of infertility. The expected outcome is an adaptive response to infertility, using the coping strategies presented in the teaching module.

Ausubel stresses organizing learning content in logical ways. Methods of achieving this end are to use outlines, note transitions between text, and including summaries at the end. Beyond this, Ausubel advocates the use of advance organizers. Advance organizers are not overviews of the material to be presented, rather, they act as an umbrella for the new material. Generally, an advance organizer is a more highly abstract statement of the material to be learned (Bell-Gredler, 1986). It is a brief visual or verbal presentation that contains no specific information from the content to be learned. For example, a picture of a grave side funeral will bring to the student's mind feelings of grief and loss, which can be transferred to the concept of infertility.

There are two more concepts from Gagne that are relative to development of the proposed teaching module. The first is a task analysis. A task analysis involves identifying a task's parts and deciding what needs to be taught in what order (Good & Brophy, 1995, p. 137). The second concept is instructional objectives. Instructional objectives provide guidance to teacher about what to teach and how to teach it, and to students about what to study and how to study it. Instructional objectives also inform the student about what they should have learned and how to

evaluate it. Instructional objectives are stated best in a manner that informs the student what one should be able to do upon completion of the instruction (Good & Brophy, 1995, p. 139). The teaching module will begin with an outline of the content, followed by instructional objectives for the learner. Each section will be ended with a set of study questions for the learner. The end of the module will contain a summary of what should have been learned and how the knowledge can be applied to infertility counseling.

Ausubel also studied the use of review questions as devices to help students integrate what they learn (Good & Brophy, 1995). Ausubel advised, "Tell them what you are going to tell them, then tell them, then tell them what you told them." (p. 184). Teachers should interpret this as:

1. Start lessons with general principles, outlines, or questions that establish a learning set,
2. Briefly describe objectives and key concepts for students,
3. Present new materials in small steps, organized sequentially and logically,
4. Finish with a review of the main points, and
5. Follow up with questions that require students to encode material in their own words and apply or extend it into new concepts (p. 184).

These five steps outline the design of the proposed teaching module and explain why this theory was chosen as a

conceptual framework for the development of a teaching module for the APN who counsels infertile couples.

In Figure 1, the concept of infertility is applied to a learning hierarchy. The hierarchy is designed to compliment the proposed teaching module. In Figure 1, it is understood that the teacher is an APN, and the learner is another APN who wishes to gain knowledge about the emotional aspects of infertility.

The hierarchy begins with a simple definition of infertility. In the module, the teacher introduces the concept of infertility. The definition of infertility is followed by the emotional responses couples have to the diagnosis. The teacher conveys to the learner that couples feel a variety of emotions, and that the possibility of maladaptive responses accompanies their responses. The teacher makes it clear to the learner that intervention at this point is important to increase the likelihood of an adaptive response to the diagnosis of infertility.

The hierarchy progresses to the coping and counseling strategies available to the APN when counseling infertile couples. The teacher educates the learner about the different interventions and instructs the learner to make an assessment of the couple to determine what interventions are indicated.

The hierarchy ends with the redefinition of infertility. The teacher educates the learner to evaluate the patients' response to the interventions, looking at the

couple's new definition of infertility and any adaptive or maladaptive responses. The expected outcome is that, with intervention, the couple will have an adaptive response to the diagnosis of infertility.

Review of Literature

The Emotions of Infertility

Barbara Eck Menning is the founder of RESOLVE, a national non-profit organization that offers counseling, referral, and support services for infertile couples. Menning has worked as a counselor of infertile people since 1973. She has done extensive telephone counseling, led support groups, edited a newsletter, and done individual and couple crisis intervention counseling (Menning, 1982). Although her knowledge is not based on scientific research, it is from her experiences with infertile couples that Menning has come to know infertility and what it means to couples.

Menning published two well-known articles (Menning, 1980; Menning, 1982) detailing the common emotions of infertility. Drawing from her experience as a counselor for infertile couples, Menning talks about the surprise felt by couples when they first learn about their infertility, followed by denial.

Most couples are used to thinking in terms of prevention of pregnancy and assume they can get pregnant whenever they choose (Menning, 1982, p. 157). Denial allows the individual time to adapt to the possibility of being

infertile. According to Menning (1980, 1982), denial serves the purpose of allowing the mind and body to adjust to an overwhelming situation and is only dysfunctional when it is long-term or becomes a permanent coping mechanism.

Menning describes the anger couples feel as they relinquish their control when starting infertility treatment, and the isolation couples feel from a lack of support and secrecy surrounding their plight. Anger may be rational, directed toward pressuring family members or toward the pain and inconvenience of tests and treatments; or it may be irrational, projected onto doctors, partners, or social issues such as abortion (Menning, 1982, p. 157). Isolation is exacerbated by couples who keep their infertility a secret, who avoid their friends and family with children, and who harbor resentment toward pregnant women.

Menning discusses the accompanying guilt and grief felt throughout the infertility experience. Menning (1982) has found that people construct a cause and effect relationship for events that happen to them. Such things as pre-marital sex, previous abortion, sexually transmitted disease, and extramarital sex are common guilt-producers (p. 158).

Gradually, anger and guilt give way to grief. The grief process is difficult, as there is no tangible loss to grieve. Menning (1980) notes that while society has rituals to comfort the bereaved in death, fertility is different in

that there is no funeral, no wake, and no flowers by the grave (p. 317).

Summarizing her article, Menning (1980) offers general advice for physicians on how she feels they can help their patients cope with the emotions they feel. Suggestions include treating infertility as a problem of the couple, offering support and education, and being accessible.

Literature that followed Menning's in the 1980's reinforced the commonality of the emotional aspects of infertility. Drawing from her counseling experience with infertile couples, Mahlstedt (1985) identifies common psychological components of infertility. She relates her patient's feelings of loss, isolation, anger, and guilt in response to the diagnosis of infertility.

A limitation of these early studies is a lack of a methodological approach. In response to the deficit of experimental research, Daniluk (1988) conducted a longitudinal, exploratory study of 63 infertile couples. Using the SCL-90-R to obtain a global measure of psychological distress levels, the results showed levels of depression, anxiety, and hostility to be significant ($P<0.01$). It may be that the lack of quantitative data on the emotions of infertility is due to the difficulty in measuring such subjective experiences.

The Impact of Infertility

In the 1990's, there has been an increase in experimental research conducted regarding the psychosocial

aspects of infertility. Abbey, Halman, and Andrews (1992) studied the effects of psychosocial, treatment, and demographic factors on the stress associated with infertility. Participants were 185 couples in Southeast Michigan with primary infertility. Using a cross-sectional design, the couples were interviewed in their homes. Abbey et al found that stress was positively correlated with the treatment costs (R=0.24 for women and R=0.19 for men) and number of tests received (R=0.32 for women and R=0.26 for men), and stress was negatively correlated with one's confidence that they will have a child (R=-0.27 for women and R=-0.33 for men) and their perceived control (R=-0.52 for women and R=-.0.41 for men). Social support was also significantly related to perceived stress (R=-0.30 for women and R=-0.17 for men). Abbey recommends that health care providers make attempts to increase patients' sense of control, optimism, and social support, in order to reduce stress. The proposed teaching module will aid in increasing patients' sense of control by educating APNs to give couples information, thereby decreasing the ambiguity of infertility; and increasing social support by recommending the use of support groups.

Berg, Wilson, and Weingartner (1991) conducted a study to investigate the level of emotional strain, marital adjustment, and sexual satisfaction of couples being treated for infertility. Her sample included 104 married couples who had been married an average of 6 years and had been

pursuing infertility treatment for an average of 28 months. Findings included higher levels of personal responsibility for infertility being correlated with greater emotional distress ($p<0.005$), and greater communication with one's spouse and marital satisfaction were correlated with lower emotional strain, better marital adjustment, and sexual satisfaction ($p<0.05$). As ways of intervening in the infertility experience, Berg recommends using couple-oriented interventions to strengthen the marital bond, efforts to rebuild one's self-image, and assisting in improving communication and in gaining access to information about infertility. The proposed teaching module will instruct the APN to counsel couples on improving communication with their spouse, family, and health care professionals; and to give information to couples regarding infertility.

Collins, Freeman, Boxer, and Tureck (1992) used a self-report questionnaire on 200 consecutively enrolled couples in an in vitro fertilization program to measure the degree of social support, the effect of infertility on sexual relationship, the anticipated stress during treatment, and emotional reactions to infertility. Findings of the study revealed that having a child was a major focus of life ($F=41.28$, $p<0.001$), and that the more intense the focus on infertility, the greater the stress ($r=0.48$ for men and $r=0.35$ for women). Women reported more social support than men in the study did, and they also engaged in more coping

activities such as seeking social support, avoidance, and withdrawal. The authors suggest counseling and discussion to provide emotional support for couples undergoing infertility treatment. The teaching module will provide the APN with recommendations on communication and counseling for infertile couples including support groups.

Hirsh and Hirsh (1995) explored the long-term psychosocial effects of infertility. Their sample consisted of 94 people that identified themselves as infertile and were recruited from the RESOLVE support group. This was a longitudinal study, lasting approximately 2 years. Over that time, the level of perceived support, general contentment, and self-esteem all increased. The positive impact of social support, counseling, and strategies to deal with the stress of infertility lend credence to the importance that support groups can play in helping infertile couples cope. The teaching module will include the use of support groups in counseling infertile couples.

Phenomenological studies in the 1990's continue to explore the feelings of infertility (Phipps, 1993: Imeson & McMurray, 1996). An important finding in these studies, reported by those experiencing infertility, is the feeling of lack of support from the health care system relative to their emotional needs. Physicians were perceived as nonsupportive and devaluing of the males' needs. Communication with physicians was seen as not meaningful; contributing to frustration, anxiety, and anger (Phipps,

1993, p. 49). The couples participating in Imeson and McMurray's study (1996) regarded experiences with health care professionals as almost exclusively negative, citing lack of information, insensitivity, and quality of support (p. 1017). A limitation of these studies is their small sample size; n=16 and n=12 respectively.

Infertility Counseling

Nurses must develop their roles as counselors and educators in the treatment of infertility. In 1985, Davis applied the concept of infertility to King's conceptual framework in order to identify appropriate nursing interventions. She identifies strategies of validating feelings and normalizing emotional responses to infertility (p. 34). These counseling strategies will be included in the teaching module for the APN.

Clapp (1985) outlined the role of the nurse for each stage of the grief response to infertility. Like Davis, Clapp recommends normalizing the infertility experience. Specifically, she suggests the use of support groups, giving accurate information, and helping couples gain control and develop coping skills to move through the crisis of infertility (pp. 33-35). These suggestions are the core concepts of the teaching module.

Recently, Olshansky (1996) developed strategies for the APN to utilize in counseling interventions for infertile couples. The first intervention involves facilitating involvement in decision-making, thereby improving one's

sense of self through empowerment. Secondly, the APN can help couples redefine the concepts of success and failure, "so that individuals can separate treatment failure from personal failure and value successful aspects of themselves regardless of the treatment outcome" (Olshansky, 1996, p. 46). Her third intervention deals with moving on in life. Olshansky suggests taking time off from infertility treatments in order to focus on other areas of life. Finally, the author recommends cultivating and maintaining personal relationships. Specifically, she enlists RESOLVE as a way for couples to develop relationships with others who are going through similar experiences (p. 46). The objectives of the teaching module are to educate the APN to provide information to couples to enhance their decision-making ability, to counsel the couple, helping them redefine their meaning of infertility, and to find success in other aspects of life. Support groups will be promoted in the teaching module as a way of increasing social support.

Mental health professionals have also responded to a couple's need for increased support when experiencing infertility. Myers and Wark (1996) developed a cognitive-behavioral counseling approach for infertile couples. Suggestions for therapy include exploring the meaning that infertility has for the couple, encouraging couples to seek rewarding activities other than childbearing, learning constructive communication and problem-solving skills, and sexual counseling (pp. 14-18). The teaching module will

advise the APN to explore the meaning of infertility with couples, to help couples redefine their infertility experience, to effectively communicate with one's spouse, family, and health care professionals, and to promote positive coping strategies.

Eunpu (1995) recommends treatment guidelines for individuals, couples, and extended family touched by infertility. She feels that the following should be part of any treatment for infertile couples; counsel as a couple, provide the couple with information regarding treatment and alternatives, help couples improve their assertiveness skills, counseling, stress reduction techniques, and support groups (pp.123-124). These treatment guidelines are the mainstays for the teaching module.

Healthcare professionals have begun to respond to their reported lack of support from patients, and while numerous interventions and counseling strategies have been suggested, there is no data available to guide treatment recommendations (Leiblum, 1997, p. 16). Research in the area of the psychosocial aspects of infertility remains mostly qualitative, with no strong supporting data about the emotional impact that infertility has on couples. Research demonstrating the efficacy of the interventions recommended for counseling infertility patients in the literature is also lacking. The teaching module for the APN will contain the most frequently recommended counseling and coping

strategies, and it will help to establish a guideline for infertility counseling.

Interventions

Nursing interventions are based on nursing diagnoses. An APN is able to blend medical and nursing diagnoses in order to formulate a plan. Examples of nursing diagnoses that may apply to the diagnosis of infertility are Potential for Complicate grief and Ineffective Family Coping. Based on these diagnoses, common interventions identified by nurses and mental health professionals in infertility counseling are 1) Normalize feelings, 2) Validate feelings, and 3) Promote adaptive coping strategies. The APN can use these strategies to help couples redefine the meaning of infertility with the expected outcome that the couple will have an adaptive response to the diagnosis and treatment of infertility.

Normalize Feelings

Initially, counseling involves normalizing the reactions that men and women have to the diagnosis of infertility. This includes helping couples better understand treatment options available and the range of emotional, financial, physical, and psychological costs associated with them (Leiblum, 1997, p. 97). Normalizing feelings allows couples to express their emotions, thereby decreasing their isolation and increasing the sharing felt between partners (Clapp, 1985, p. 33). Frank (1984) agrees that it is very important for couples to express their

feelings about the losses they have experienced, and that the nurse validates that their reactions are appropriate to the losses (p. 21).

Validate Feelings

Validation is a way of responding to others in a way that conveys empathy and support. It does not involve power or obligation; rather validation is a way of providing inner strength. It does not necessarily require a verbal exchange; validation can be expressed by a look or a hug. Validation provides both recognition and enhances a person's self-esteem (Olson & Schneider, 1990). "Validation becomes therapeutic when it intentionally affirms the fullness and the reality of human struggles, crises, and grief" (Olson & Schneider, 1990, p. 28). A study by Feil (1992) found validation therapy as an effective means of restoring self-worth, reducing stress, and promoting communication and well being in demented elderly. Thirty nursing home residents underwent validation therapy once a week for six months. After therapy, the residents showed an increase in positive affect and a decrease in negative affect.

Adaptive Coping Strategies

Adaptive coping strategies include general strategies of information-seeking and good communication with health care workers and one's spouse, along with specific coping strategies such as relaxation, imagery, and the use of support groups to deal with the emotions of infertility. These interventions are aimed at increasing one's feeling of

control, maintaining self-esteem, decreasing stress, and reframing the situation in order to achieve a successful resolution to the crisis of infertility.

Information

Knowledge offers a form of control over a situation. By giving someone information, it allows them increased control over their actions and their emotions. Generally, couples being treated for infertility want to have a lot of information so that they can feel in control of the process (Read, 1995, p. 57). Knowledge allows couples to make informed decisions about their treatment, thereby increasing their sense of control over the outcome and decreasing stress. Much research has been done demonstrating the benefits of information.

A study by Barsevick and Johnson (1990) examined 36 women undergoing colposcopy, a stressful medical procedure. The findings revealed that information seeking was associated with positive emotional responses and that preparatory information increased people's confidence in their ability to handle health care problems.

In a study involving 83 expectant fathers attending childbirth education classes, Diemer (1997) used a quasi-experimental design to look at education as a form of social support. Men who participated developed coping skills to facilitate role change, experienced less stress, and demonstrated more supportive behaviors toward their spouse. The proposed teaching module will instruct the APN to

provide couples with information, in order to decrease the stress associated with infertility and to increase the couple's sense of control over the experience.

Communication

Coping with infertility involves dealing with overflowing emotions and difficult decision-making. Couples need to learn constructive communication and problem-solving skills to facilitate crisis resolution. The role of the counselor is to encourage effective communication between spouses and between the couple and the health care system. Myers and Wark (1996) recommend communication strategies such as beginning sentences with "I" instead of "you" to avoid sounding blameful and provoking one's spouse to become defensive and withdraw; paraphrasing each other's statements to encourage active listening instead of misunderstanding; and viewing infertility as an opponent of the couple, rather than viewing the crisis as one spouse against another (pp.15-16). Couples that don't communicate face many difficulties. In general, women are more likely to discuss their infertility than men are. Men must be encouraged to listen to their spouses and not feel that they have to have a solution to the problem, and women need to know that their husband's silence is not him withdrawing, but stems from a sense of hopelessness (Eunpu, 1995, p. 122).

Communication with health care providers can also be problematic. Read (1995) makes suggestions for couples when

communicating with their health care provider. She recommends teaching couples to be more assertive by:

1. Asking questions
2. Make demands on course and tempo of treatment
3. Make up a list of questions before appointments, and
4. Ask for clarification if medical language is too obscure (p. 60).

These communication strategies will increase the couple's sense of control and make resolution of the crisis easier.

Relaxation and Imagery

Relaxation and imagery will be discussed together since relaxation is often a prelude to imagery. These are specific coping strategies that can be used to decrease the amount of stress associated with the crisis of infertility.

The relaxation response is the opposite of the stress response. When one is stressed, the body reacts by the heart beating faster and muscles tightening. During relaxation, one's heart rate slows down and muscles relax. There are different techniques for eliciting the relaxation response. Methods to induce relaxation include deep breathing, sequentially tightening and relaxing all the muscle groups in the body, and counting backwards from 10-1 (Benson & McKee, 1993). Once relaxation is achieved, guided imagery is employed.

Guided imagery comes from an ancient healing technique whereby purposeful mental images are used to achieve a desired therapeutic goal (Stephens, 1993a). The energy

created by imagery results in a state of positive expectancy, which incorporates the belief that a successful resolution to a problem exists, and confidence that resources to deal with the problem are available (Stephens, 1993a, p. 171). Imagery works to alter mental states, self-images, and behaviors. Imagery helps people gain a sense of control over their lives, a renewed sense of purpose, and the strength to make necessary changes (Stephens, 1993a, p. 171). Imagery can be a powerful tool in coping with the emotional stress of infertility.

The efficacy of relaxation and imagery in stress reduction has been demonstrated by many research studies, including one related to infertility. In a study by Domar, Zuttermeister, and Seibel, and Benson (1992), 52 self-referred women undergoing infertility treatment participated in a 10-week intervention program that included relaxation training. These women reported a statistically significant improvement in tension, anxiety, depression, and hostility after the program.

Leja (1989) conducted a quasi-experimental pilot study involving 10 post-surgical hospitalized older adults in a private Midwest hospital. The study used guided imagery to combat post-surgical depression, and their results showed that older adults had significantly lower depression scores one week following guided imagery than those who did not participate in guided imagery.

Support Groups

Social support is important in successfully resolving the crisis of infertility. Support can come from family, friends, and one's spouse. Support can also be found within groups of people that share one's same situation. The most well known infertility support group is *RESOLVE*. Much of the research done regarding infertility has used members of *RESOLVE* as the research population. While no research has been done to test the effectiveness of *RESOLVE* in dealing with the emotions and stresses of infertility, there is a lot of data available to support the use of support groups in other areas.

Muhlenkamp and Sayles (1986) did a study involving 98 adult volunteers in a southwestern city to determine the relationship between self-esteem, social support, and positive health practices. Using a simple correlation matrix, they found that there is a positive relationship between all variables. Furthermore, social support had a direct influence on self-esteem, resulting in an indirect influence on positive health practices.

Leavitt, Lamb, and Voss (1996) studied members of a support group for people with brain tumors to identify content themes and mechanisms of support in the group. Using a descriptive exploratory design, they identified benefits of the support group as; opportunities to share experiences and information, a means of preventing isolation, fostering hope, discovering coping skills, and

validating perceptions and feelings. Validation was identified as a means of support by the participants' confirmations of the reasonableness of one another's perceptions, feelings, and responses to common experiences.

A comparative study by Walton and Youngkin (1987) explored the effects of a support group on the self-esteem of women with premenstrual syndrome (PMS). All support group participants reported benefits including:

- Comfort in knowing that one is not alone
- Increased knowledge from educational material
- Validation of symptoms
- Sharing
- Recognition that PMS is a disease, and
- Help in better understanding oneself

Davis, Hoshiko, Jones, and Gosnell (1992) looked at the effects of a support group on grieving individuals' level of perceived support and stress. Using a single group pretest/posttest design from a convenience sample of 21 individuals in a support group at a nonprofit agency in Northeast Ohio, their findings indicated that a support group can be an effective intervention to decrease feelings of stress in bereaved individuals.

While none of the above studies involved infertility support groups, the benefits of the support groups studied would all be effective in coping with the crisis of infertility. It is reasonable to believe that an

infertility support group would provide couples with these same benefits.

Not all couples facing infertility have an adaptive response to the crisis. Couples may experience marital difficulties and sexual dissatisfaction (Olshansky, 1996). Ineffective coping strategies such as denial and substance abuse compound the emotional trauma that infertility represents (Captain, 1989). The interventions in the proposed teaching module are directed at increasing a couple's sense of control over the situation, maintaining self-esteem, and decreasing the stress associated with infertility. These interventions, with the support of the APN, will help couples reframe their meaning of infertility. It is expected that the couple will have an adaptive response to their experience with infertility, moving on to focus energy on other areas of their lives in a positive way.

Project Development

The teaching module is designed to facilitate APNs teaching other APNs about counseling and coping strategies to use in infertility counseling to promote an adaptive response to the diagnosis of infertility. In order to positively resolve the crisis that infertility represents, couples must redefine their meaning of infertility. Redefining infertility is a way for couples to separate themselves from their identity as infertile, and to move on in life in other satisfying ways.

Couples involved in infertility treatment experience a sense of "time on hold". When couples accept their childless state, they can begin to look forward, with an increased focus on recreating their lives in meaningful ways (Read, 1995, p. 78). Reframing their decision to end treatment as a success rather than a failure will help the couple move forward (p. 80).

In order to resolve the crisis of infertility, couples must disconnect their self-image, their self-esteem, and their sexuality from childbearing. Once this has been done, plans for the future can be begun again, building away from the obstacle of infertility (Menning, 1980, p. 317). Signs of a resolution are a renewed sense of energy, reassessment of life goals, and a returned sense of humor (Schoener & Krysa, 1996, p. 171).

An APN can assist in reframing a couple's meaning of infertility by helping them focus on specific aspects of their lives that they view as successful, such as a talent or professional success. By validating the value and success of these areas, individuals can find positive meaning in their lives (Olshansky, 1996, p. 46).

Couples may also be encouraged to take a vacation from infertility treatment if they don't want to stop it completely. Taking time off allows for focusing on other aspects of life and emphasizes life beyond infertility (Olshansky, 1996, p. 46).

Guided imagery can also be used as a method of redefining the meaning of infertility for couples. Through a process called reframing, an individual is able to see an old problem in a new light (Stephens, 1993a, p. 172). Using imagery, a person is enabled to free the problem from its original memory and make new connections, thereby allowing them to move toward a resolution of the problem (p. 172). Krejci (1997) has used guided imagery for 10 years to reframe students' mental models of nursing and stimulate critical thinking.

The use of effective communication among spouses and healthcare providers and the use of support groups can also serve as effective methods of redefining the meaning of infertility, allowing couples to positively resolve the crisis of infertility.

The Teaching Module

The proposed intervention will be in the form of a teaching module. It's wording will be concise and presented in a logical fashion. Based on key concepts from Robert Gagne and David Ausubel, the teaching module will begin with an advance organizer, followed by a content outline and learning objectives. Each content section will be followed by study questions. The teaching module will end with a summary statement about what the APN should have learned and how to apply the learned knowledge to infertility counseling to facilitate an adaptive response to infertility.

The first content section of the module will consist of an introduction and definitions of infertility. The medical definition will be included, since that is how infertility is conceptualized by most health care professionals. A conceptual definition of infertility will also be presented, based on the psychosocial aspects of infertility at which the teaching module is aimed at impacting. The individual emotions of surprise, denial, anger, isolation, guilt, and grief will be included in the module, followed by specific interventions for counseling infertile couples including normalizing and validating couples' feelings, giving information, effective communication, support groups, relaxation and guided imagery. These interventions will be useful for the APN when helping couples redefine their meaning of infertility with the expected outcome that the couples will have an adaptive response to the diagnosis of infertility.

Printed Education Materials

Printed education materials (PEMs) are the method of choice for transmitting subject-matter content. Two advantages of PEMs are that a great quantity of material can be presented over a given unit of time and that the rate of presentation is under the control of the learner (Ausubel, 1968). The efficacy of PEMs has been shown in many studies.

A study by Evans et al. (1996) involving 130 internal medicine residents in a randomized controlled trial investigated whether an educational intervention designed to

improve resident physicians' skills and confidence in dietary counseling would increase the dietary counseling of patients with high cholesterol. Their results showed that after the intervention, the physicians' confidence in their counseling ability increased from 26% to 67%-78%. The intervention almost doubled the frequency of physician counseling and increased the likelihood that patients would try to change their diets. By implementing a teaching module for infertility counseling, it is likely that APNs will increase their counseling efforts and patients will report less often that they do not receive the emotional support they need.

A study by Ryan and Williams (1996) also showed positive results after the use of printed education materials. The project used a descriptive survey design in which teachers and nurses of children affected by cystic fibrosis (CF) were tested before and after intervention on their knowledge of CF. Comparison of the pretest and posttest scores showed an increase in the teachers' knowledge. The results support the use of a printed handbook to promote knowledge of CF and support communication among nurses, parents, and teachers.

While printed education materials have been shown to be an effective way of distributing information, there are many important features of PEM's to consider in making sure they will be efficacious. Ausubel (1968) capitulates that the writing style should be simple and precise, that sufficient

redundancy is necessary for comprehension and retention, and that content should follow from familiar to unfamiliar, from simple to complex ideas.

Evaluation

A study by Evian, Ijsselmuiden, Padayachee, and Hurwitz at the Johannesburg City Health Department in South Africa (1990) demonstrated the need to evaluate educational materials before they are employed in practice. The health department adapted a cartoon an AIDS education poster. Before final production, the poster was evaluated, and further editing and restructuring of the poster was necessary. The study highlights the importance of a formal evaluation of PEM by a sample target audience before production and distribution.

In a similar study, Hirsch and Edelstein (1992) evaluated 5 posters to determine if students understood, identified with, and were motivated by messages dealing with safer sex, alcohol, and stress management. They suggested that pre-testing provides an opportunity for remedying design flaws, improving effectiveness, and saving money before distribution to the target audience.

Initially, the proposed teaching module will be peer reviewed by 4 APNs. This will allow opportunity to make any necessary changes before it is used in a pilot study. Next, the effectiveness of the teaching module will be evaluated, using a pilot study. A random sample of 25 APNs practicing in family or women's health centers will be selected from

the metropolitan Detroit area. The teaching module will be distributed, and three months later, an evaluation form will be sent to the participating APNs. The evaluation form will be designed to determine if the APNs: 1) Read the teaching module, 2) If they felt there was a need for the intervention, 3) If they incorporated the learned knowledge into their practice, 4) If they noticed any changes in the way that couples dealt with the emotions of infertility, and 5) Any comments or recommendations they may have. The returned evaluations will be reviewed, and any necessary changes will be made to the teaching module. The teaching module will initially be distributed via presentation at a symposium presented by the Infertility Nurses Association. The costs of production of the teaching module will be covered by the manufacturer of Clomid, a fertility drug. Once an increased need is expressed, the teaching module will be made available to any APN.

Implications

Infertility patients have expressed a need for health care providers to be more responsive to their emotional needs. The proposed teaching module will educate APNs about the common emotions couples feel during the infertility experience. It includes methods for counseling clients and coping strategies to teach couples to use when undergoing infertility treatment to deal with their emotional responses. When implemented, the teaching module will be a

benefit to advanced nursing practice, education, and research.

Practice

The teaching module will improve the practice of APNs by increasing their knowledge of the emotional aspects of infertility. It will encourage APNs to be sensitive to patients' need for emotional support during infertility treatment. When APNs use the counseling techniques and coping strategies included in the teaching module in their practice, patients will feel emotional support from their health care provider. The interventions will also have an impact on the outcomes of health care, improving the possibility of an adaptive response to the diagnosis of infertility. Improved outcomes translate into cost effectiveness, which is a major concern in health care delivery currently.

Education

The teaching module will also have an impact on the education of APNs. Not only can it be presented to APNs in practice, but it could also be included as part of the curriculum for undergraduate and graduate students alike. Infertility affects millions of couples every year, and nursing education should include information regarding infertility; causes, treatment options and referral sources. The teaching module specifically addresses emotional aspects of infertility and ways to treat them. In the future, the teaching module may be approved for continuing education

credits for APNs in practice. The teaching module could also be modified for distribution on the internet or for use as a professional presentation.

Research

There are many areas of the teaching module that lend itself to research. Before it is implemented in practice, APNs can be surveyed in order to see if they do provide emotional support for their patients. Infertile patients could also be included in research, to investigate if there is a discrepancy between the provider and the patient regarding the amount and effectiveness of any counseling provided. If APNs don't offer it, the reasons for lack of emotional counseling can be investigated. APNs can also be interviewed to find out how much they know about how infertility patients feel. The teaching module will replace any knowledge deficit in the area of patients' emotional responses to infertility.

Research involving the teaching module can include investigating to see if it is used in practice and if so, if it changes the practice patterns of APNs and if patients feel that their emotional needs are being met. Another aspect of research to be conducted would be to determine if the coping strategies suggested in the teaching module are efficacious in dealing with infertility, since that has never been done before. This line of inquiry should include an attempt to determine which interventions work best for different populations. Outcomes may be measured by the

number of patients that report marital difficulties, sexual dissatisfaction, or use of ineffective coping skills. Other measurable outcomes could include days missed from work, scores on a depression scale, or the rate of adoption after infertility counseling.

Conclusion

The teaching module should prove to be an effective tool to use in educating APNs about the emotional aspects of infertility. Knowledge gained from the teaching module will improve the practice of APNs and eliminate the need that infertile couples express for more emotional support from their health care provider. If implemented as part of nursing curriculum, the teaching module will improve the education of nurses preparing for advanced practice. There are many aspects of the teaching module that need to be studied. Investigation can determine whether or not APNs are utilizing the information contained in the module; that the strategies suggested in the module are effective; and most importantly, that patients experiencing infertility no longer have a need for their health care provider to be more responsive to their emotional needs.

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APPENDIX A

The Emotions of Infertility

A Teaching Module for Advanced Practice Nurses

Objectives

Upon Completion of this teaching module the APN will be able to:

1. Define the concept of infertility.

2. Explain why the incidence of infertility is increasing.

3. Identify the six common emotions of infertility and why people experience the emotions.

4. Explain how normalizing the emotions of infertility is an important aspect of infertility counseling.

5. Explain what validation is and why it is useful in infertility counseling.

6. Describe how information seeking by the patient and information giving by the APN are beneficial to coping with infertility.

7. Describe good communication techniques for use by infertile couples with each other, with their families, and with their health care providers.

8. Explain the benefits of relaxation and guided imagery as applied to infertility. Give an example of guided imagery that may be used by an infertility patient. Identify resources to learn more about infertility.

9. Explain the benefits of support groups in infertility counseling. Name two infertility support groups.

10. Explain the reasoning behind the strategy of redefining the meaning of infertility for infertile couples. Identify different ways in which this can be achieved.

Table of Contents

Section 1.

Introduction

Infertility is a common occurrence, and the incidence of infertility is on the rise. More than 10 million American couples will experience infertility, which translates into one of every five couples experiencing fertility problems (Phipps, 1993).

Several reasons account for the increasingly common infertility experience. Factors such as delays in marriage and childbirth, increased use of oral contraceptives, exposure to harmful environmental agents, sexually transmitted diseases, and abortion all may have an indirect effect on fertility (Phipps, 1993). Also, as the awareness of infertility increases, more couples are seeking medical attention to help treat their formerly private problem (Davis & Dearman, 1991).

Of the couples that seek treatment for fertility problems, 40% will be diagnosed with a female etiology, 40% with a male causative-factor, and 20% of fertility problems are a result of variances in both partners or of an unknown origin (Eunpu, 1995). While health care providers have become adept at diagnosing fertility problems, there continues to be a need identified by the couples experiencing fertility difficulties to address the emotions associated with the diagnosis (Imeson & McMurray, 1996; Phipps, 1993; Woods, Olshansky, & Draye, 1991).

Definition of Infertility

Most couples define infertility as a life crisis (Imeson & McMurray, 1996). Similar to other crises, infertility is characterized by a period of psychological disequilibrium that involves some common emotional reactions. Also like other crises, infertility proceeds through a process to a resolution, be it adaptive or maladaptive. The role of the APN is to strengthen the support for the psychosocial issues of infertility. The APN's practice is based on the holistic nursing model. The APN is able to draw from theoretical models for loss and grief, in order to intervene in the emotional aspect of infertility and influence an adaptive response to the diagnosis of infertility.

The Merck Manual (1992) defines infertility as, "the inability to achieve a pregnancy after a year of regular sexual relations without the use of contraception, or to

carry a pregnancy to live birth". A conceptual definition of infertility that takes into account the psychosocial factors of infertility is more appropriate for this teaching module. For the purpose of this teaching module, infertility is defined as a situational crisis involving an intangible loss that goes unrecognized by society, accompanied by feelings of denial, anger, isolation, guilt, and grief.

Study Questions

1. Define infertility.
2. Why is the incidence of infertility increasing?
3. What is the role of the APN in infertility?

Section 2.

The Emotions of Infertility

Patients may initially express **surprise** regarding their diagnosis of infertility. Most couples are used to thinking in terms of prevention of pregnancy and assume they can get pregnant whenever they choose (Menning, 1982, p. 157).

Often times, surprise is followed by **denial**. This response allows the individual to adapt to the possibility of being infertile. When the absence of pregnancy becomes intolerable, the individual seeks help (Schoener & Krysa, 1996 p. 168). According to Menning (1980, 1982), denial serves the purpose of allowing the mind and body to adjust to an overwhelming situation and is only dysfunctional when it is long-term or becomes a permanent coping mechanism.

After denial comes **anger** for many infertile couples. Anger is a response to the loss of control that individuals feel when experiencing infertility. Anger may be rational, directed toward pressuring family members or pain and inconvenience of tests and treatments; or it may be irrational, projected onto doctors, partners, or social issues such as abortion (Menning, 1982, p. 157).

Anger often times leads the couple to isolate themselves from others. Phipps (1993) found that men described feeling isolated from others and being physically isolated from their spouses, while women's isolation came from feeling that nobody could understand their experience, including their husbands (p. 48). **Isolation** is exacerbated by couples who keep their infertility a secret, who avoid their friends and family with children, and who harbor resentment toward pregnant women.

Guilt is often accompanied by the attempts at secrecy. Patients feel guilty for being infertile, or living on an emotional roller coaster, for upsetting their spouse, for disrupting their lives, and for disappointing their families (Mahlstedt, 1985, p. 341). Menning (1982) has found that people construct a cause and effect relationship for events that happens to them. Such things as pre-marital sex, previous abortion, sexually transmitted disease, and extramarital sex are common guilt-producers (p. 158).

Gradually, anger and guilt give way to **grief**. The grief process is difficult, as there is no tangible loss to grieve. Mahlstedt (1985) summarizes the grief of infertility well by stating that, "the couple yearns for the child that may never be and mourns over the child

that never was" (p. 340). Menning (1980) notes that while society has rituals to comfort the bereaved in death, fertility is different in that there is no funeral, no wake, and no flowers by the grave (p. 317). Couples must grieve at many points in the infertility experience: at diagnosis, over changes in lifestyle, during each new menses, and at the loss of an early pregnancy (Schoener & Krysa, 1996, p. 170).

Study Questions

1. What are the six emotions infertility couples usually feel?
2. Name a positive purpose that denial serves for infertility patients.
3. Give an example of irrational anger displayed by an infertility patient.
4. Why do infertility patients feel isolated?
5. What are some common guilt-producers during the infertility experience?
6. Why is the grief felt by infertility patients different from other grief experiences?

Section 3.

Interventions - Normalize Feelings

Initially, counseling involves normalizing the reactions that men and women have to the diagnosis of infertility. This includes helping couples better understand treatment options available and the range of emotional, financial, physical, and psychological costs associated with them (Leiblum, 1997, p. 97). Frank (1984) agrees that it is very important for couples to express their feelings about the losses they have experienced, and that the nurse validates that their reactions are appropriate to the losses. (p. 21).

One way for the APN to normalize the couple's feelings is to openly talk to the couple about how each is feeling and ask direct questions about how infertility treatment is affecting him or her. **Normalizing feelings** allows couples to express their emotions, thereby decreasing their isolation and increasing the sharing felt between partners (Clapp, 1985). An APN can also mention some of the common guilt-producing causes of infertility, such as sexually transmitted diseases, thus normalizing the couple's feelings without forcing them to disclose their secrets. This will allow the couple to decrease their sense of isolation.

Study Questions

1. How does normalizing the feelings couples experience in reaction to infertility help during counseling?
2. How can the APN help normalize the feelings that couples have in response to their infertility?

Section 4.

Intervention – Validate Feelings

Validation is a way of responding to others in a way that conveys empathy and support. It does not involve power or obligation; rather validation is a way of providing inner strength. It does not necessarily require a verbal exchange; validation can be expressed by a look or a hug. Validation provides both recognition and enhances a person's self-esteem (Olson & Schneider, 1990). "Validation becomes therapeutic when it intentionally affirms the fullness and the reality of human struggles, crises, and grief." (Olson & Schneider, 1990, p. 28).

The APN can use validation techniques with couples, in order to empower couples to make decisions regarding their treatment. Validation also conveys to the couple that the APN understands how they are feeling and supports them. An APN uses validation when he/she acknowledges the moments of crisis, grief, and success in infertility treatment. Just by putting a hand on a crying patient says, " I realize your grief, I understand it, and you are not alone".

Study Questions

1. What is validation? Give an example of a validating response.
2. How is validation helpful in infertility counseling?

Section 5.

Intervention – Give/Seek Information

Knowledge offers a form of control over a situation. By giving someone **information**, it allows them increased control over their actions and their emotions. Generally, couples being treated for infertility want to have a lot of information so that they can feel in control of the process (Read, 1995, p. 57). Knowledge allows couples to make informed decisions about their treatment, thereby increasing their sense of control over the outcome and decreasing stress.

The APN can increase a couple's control by teaching them about their reproductive system and explaining diagnostic tests, including rationale for the use of specific procedures. If a couple knows the expectations and reason behind a given procedure, they will be able to better prepare themselves emotionally for the test. Information will also help the couples develop realistic expectations about the treatment process, so that they do not experience avoidable disappointments (Frank, 1984).

A web site for information on various methods of infertility treatment, articles on coping, and the latest information on various infertility drugs and medications can be accessed at **http:www.ihr.com/infertility/**. The site contains information on adoption, support groups, sperm banks, and contains a bibliography of books, articles, and videos on the subject. A list of fertility clinics by state can also be found there.

Study Questions

1. What are the benefits of giving and seeking information in infertility counseling?
2. How can an APN increase a couple's sense of control during infertility treatment?

Section 6.

Intervention - Communication

Coping with infertility is overflowing with emotions and difficult decision-making. Couples need to learn constructive **communication** and problem-solving skills to facilitate crisis resolution. The role of the counselor is to encourage effective communication between spouses and between the couple and the health care system. Myers and Wark (1996) recommend communication strategies such as beginning sentences with "I" instead of "you" to avoid sounding blameful and provoking one's spouse to become defensive and withdraw; paraphrasing each other's statements to encourage active listening instead of misunderstanding; and viewing infertility as an opponent of the couple, rather than viewing the crisis as one spouse against another (pp.15-16). Couples that don't communicate face many difficulties. In general, women are more likely to discuss their infertility than men are. Men must be encouraged to listen to their spouses and not feel that they have to have a solution to the problem, and women need to know that their husband's silence is not him withdrawing, but stems from a sense of hopelessness (Eunpu, 1995, p. 122).

Communication with health care providers can also be problematic. Read (1995) makes suggestions for couples when communicating with their health care provider. She recommends teaching couples to be more assertive by:

1. Asking questions
2. Make demands on course and tempo of treatment
3. Make up a list of questions before appointments, and
4. Ask for clarification if medical language is too obscure (p. 60).

These communication strategies will increase the couple's sense of control and make resolution of the crisis easier.

Study Questions

1. What are some communication strategies that APNs can recommend to infertility patients to promote effective communication?
2. How can you teach your patients to be more assertive when communicating with their health care provider?

Section 7.

Intervention – Relaxation and Guided imagery

Relaxation and imagery will be discussed together since relaxation is often a prelude to imagery. These are specific coping strategies that can be used to decrease the amount of stress associated with the crisis of infertility.

The relaxation response is the opposite of the stress response. When one is stressed, the body reacts by the heart beating faster and muscles tightening. During relaxation, one's heart rate slows down and muscles relax. There are different techniques for eliciting the relaxation response. Methods to induce relaxation include deep breathing, sequentially tightening and relaxing all the muscle groups in the body, and counting backwards from 10-1 (Benson & McKee, 1993). Once relaxation is achieved, guided imagery is employed.

Guided imagery comes from an ancient healing technique whereby purposeful mental images are used to achieve a desired therapeutic goal (Stephens, 1993a). The energy created by imagery results in a state of positive expectancy, which incorporates the belief that a successful resolution to a problem exists, and confidence that resources to deal with the problem are available (Stephens, 1993a, p. 171). Imagery works to alter mental states, self-images, and behaviors. Imagery helps people gain a sense of control over their lives, a renewed sense of purpose, and the strength to make necessary changes (Stephens, 1993a, p. 171).

There are many types of imagery. The following are examples of the use of imagery in infertility counseling:

Receptive imagery – allow the person to be quiet and see what mental images come into their consciousness without deliberately creating an image. For example, a woman may bring to mind her husband with another woman and a child. This will allow for discussion of the patient's previously unconscious fears in counseling and decrease the stress associated with the image.

Active imagery – deliberately constructing images that are important to well being. In this case, a person might construct a romantic image of flowers and candlelight and making love for reasons of love and not because it is the scheduled time to have sex. This image allows the person to separate the crisis of infertility from the rest of their life.

Ideally, the mental image will carry over into reality and serve as a way of preserving a couple's sexual satisfaction.

End-state Imagery – picturing a final healed state. For couple's this image may be a mental image of themselves at the resolution of the crisis. This may be an image of them with children that they have adopted or conceived through artificial means, or it may be an image of itself without a child, finding satisfaction in their relationship and their careers.

For more information, contact the **Academy for Guided Imagery**, P.O. Box 2070, Mill Valley, CA. 94942; phone: (415) 389-9324. Certification in Guided Imagery is available through the Academy for Guided Imagery, P.O. Box 8177, Foster City, CA. 94404; phone: (415) 570-6157. Imagery can be a powerful tool in coping with the emotions and stress of infertility.

Study Questions

1. What bodily responses occur during relaxation?
2. How does guided imagery work? What are the outcomes of guided imagery? Apply these outcomes to the concept of infertility.
3. From where can you obtain more information about guided imagery?

Section 8.

Intervention – Support Groups

Social support is important in successfully resolving the crisis of infertility. Support can come from family, friends, and one's spouse. Support can also be found within groups of people that share one's same situation. **Support groups** have been shown to have positive effect on self-esteem and positive health practices (Muhlenkamp & Sayles, 1986). Benefits of support groups have been identified as; opportunities to share experiences and information, a means of preventing isolation, fostering hope, discovering coping skills, and validating feelings (Leavitt, Lamb, &Voss, 1996).

The most well known infertility support group is **RESOLVE**. Resolve is a national, non-profit organization founded in 1973. It offers counseling, referral, and support services to infertile couples. The phone number for RESOLVE of Michigan is (248) 680-0093. They can also be contacted via the internet at RESOLVE.com.

A second support group for infertility in Oakland County is **The Fertility Challenge Support Group**. They can be contacted at (248) 551-0523. Contact a local hospital or infertility clinic for support groups in your area.

Study Questions

1. What are the benefits of support groups? How is this useful for infertility patients?
2. What is the most popular infertility support group? How can you contact them?

Section 9.

Expected Outcome – Redefine the Meaning of Infertility

The last counseling strategy, the **redefinition of infertility**, is a way for couples to separate themselves from their identity as infertile, and to move on in life in other satisfying ways.

Couples involved in infertility treatment experience a sense of "time on hold". When couples accept their childless state, they can begin to look forward, with an increased focus on recreating their lives in meaningful ways (Read, 1995, p. 78). Reframing their decision to end treatment as a success rather than a failure will help the couple move forward (p. 80).

In order to resolve the crisis of infertility, couples must disconnect their self-image, their self-esteem, and their sexuality from childbearing. Once this has been done, plans for the future can be begun again, building away from the obstacle of infertility (Menning, 1980, p. 317). Signs of a resolution are a renewed sense of energy, reassessment of life goals, and a returned sense of humor (Schoener & Krysa, 1996, p. 171).

An APN can assist in reframing a couple's meaning of infertility by helping them focus on specific aspects of their lives that they view as successful, such as a talent or professional success. By validating the value and success of these areas, individuals can find positive meaning in their lives (Olshansky, 1996, p. 46).

Couples may also be encouraged to take a vacation from infertility treatment if they don't want to stop it completely. Taking time off allows for focusing on other aspects of life and emphasizes life beyond infertility (Olshansky, 1996, p. 46).

Guided imagery can also be used as a method of redefining the meaning of infertility for couples. Through a process called reframing, an individual is able to see an old problem in a new light (Stephens, 1993a, p. 172). Using imagery, a person is enabled to free the problem from its original memory and make new connections, thereby allowing them to move toward a resolution of the problem (p. 172). Krejci (1997) has used guided imagery for 10 years to reframe students' mental models of nursing and stimulate critical thinking.

The use of effective communication among spouses and healthcare providers and the use of support groups can also serve as effective methods of redefining the meaning of infertility, allowing couples to positively resolve the crisis of infertility.

Study Questions

1. Why is it important for infertile couples to redefine their meaning of infertility? What are some different ways in which couples can do this?

Section 10.

Conclusion

Infertility is viewed by most couples as a life crisis (Imeson & McMurray, 1996). A healthy resolution to this crisis may lead to couples considering other alternatives such as adoption, artificial insemination, or remaining childless (Myers & Wark, 1996). A maladaptive response to the crisis may result in decreased sexual satisfaction, marital disturbances, and psychological distress (Olshansky, 1996). The process of resolution requires that each of the emotional responses to infertility are recognized, worked through, and overcome (Menning, 1980).

This module teaches the APN to recognize the emotions of surprise, anger, denial, isolation, guilt, and grief in response to infertility. Methods included in the model to work through these emotions are normalizing and validating feelings, communication techniques, and information. In order to overcome the emotions, the APN is instructed to teach patients to use relaxation and guided imagery and support groups. Assisting the patients redefine the meaning of infertility as something other than a crisis is also an important task of the APN in infertility counseling.

Appendix A.

The Emotions of Infertility – When to intervene

Intervention	Benefits	When to implement
Normalize Feelings	• Allows couples to express feelings • Decreases isolation • Increases sharing between partners	Upon initiation of counseling
Validate Feelings	• Provides inner strength • Enhances self-esteem • Restores self-worth • Reduces stress • Promotes communication	Upon initiation of counseling
Give/Seek Information	• Offers control over a situation • Allows couples to make informed decisions • Decreases stress • Increases confidence	Giving information varies. Most couples want a lot of information. Encourage seeking information throughout counseling.
Communication	• Facilitates crisis resolution • Discourages misunderstanding • Avoids blame • Discourages emotional withdrawl • Encourages active listening	Initiate at onset of counseling. Continue to work on communication techniques throughout.
Relaxation and Guided Imagery	• Decrease stress • Creates positivism • Builds confidence • Helps gain control	Initiate as an adjunct to couples current coping strategies or in place of ineffective strategies
Support Groups	• Increases self-esteem • Positive effect on health practices • Opportunity to share information and feelings • Prevents isolation • Fosters hope • Discover coping skills • Validation of feelings • Decreases stress	Provide referrals upon initiation of counseling. Continue to recommend the use of support groups throughout treatment.
Redefine the meaning of infertility	• Allows couples to separate themselves from their identity as infertile • Enables couples to move on in life in other satisfying ways • Renewed sense of energy • Find positive meaning in life	Use the other interventions listed to assist the couples find a new meaning for infertility. The expected outcome is that couples will develop adaptive coping strategies to deal with their infertility.