Review Article

Role of Mental Health Practitioner in Infertility Clinics: A Review on Past, Present and Future Directions

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Abstract

A large body of literature has emerged over the past four decades which highlights the need to address emotional needs in infertility and integrates psychological services within routine fertility care. Evidenced-based guidelines in most countries propagate that the mental health expert (MHP) plays a vital role as a team member in reducing the impact of infertility on the lives of patients, across all stages of treatment. In accordance with these global developments, inclusion of psychosocial care in fertility treatments is an upcoming trend in our nation. This review article brings forth the traditional role of MHP in infertility, compares patient-centered care with counseling, and elaborates on the guidelines on determinants of patient needs and suitability for structured psychological interventions. It also highlights the evidence-based studies on the application of psychotherapy in infertility.

Keywords: *Counseling, emotional needs, infertility, patient-centered care, psychosocial care, psychotherapy, reproductive psychology, review*

Evolution of Psychology, Counseling, and the Role of Mental Health Expert in Infertility

The mental health practitioner's entry in gynecology and their earliest role in treating patients with infertility dates back to the 1930s when nearly 30% of all cases were diagnosed to suffer from unexplained infertility. It was back then that infertility was thought to arise due to an unidentifiable medical condition and thus attributed to a latent psychodynamic conflict in the person. Women with infertility were understood to have an unconscious childhood conflict with their own parents resulting in two kinds of personality styles, i.e., emotionally immature or overambitious/masculine. Infertile men, on the other hand, were reported to have high sexual anxiety and experience an unconscious threat from their overprotecting and dominating mothers.[1]

In the 1970s, the psychobiological linking between stress, behavior, and fertility started being explored. Historical records[1] reflect that the first consumer movement and patient approach to psychological health and care in infertility were guided by Barbara Menning (an infertility nurse). Menning recognized the role of grief in infertility. She is acknowledged as the first person to openly talk about the emotional strain, religious myths, stigma, moral, and ethical dilemmas associated with it. She later went on to publish the first self-help book, formed the first infertility support group named as "resolve" and a newsletter to facilitate coping with its consequences. Menning added on that the "advent of newer and better medical technologies placed a higher emotional risk for people subjected to them." Infertile couples are vulnerable and exploited by several sources even today to "have a baby at any cost."[1] Therefore, she recognized the role of mental health professionals (MHPs) and behavioral scientists in this field. She proposed that the infertility team should step forward to support the grief of couples and reduce the emotional burden of treatments through careful patient selection, psychological counseling, treatment insurance, and implementation.[2]

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Later, Menning's efforts and simultaneous birth of assisted reproductive technologies (ART) led to the establishment of a strong patient advocacy movement owing to which the agenda of "emotional well-being of patients" was brought to the forefront. Consequently, infertility distress began to be understood as a consequence of infertility rather than its cause. This stirred research on the positive and negative effects of infertility, gender-based outcomes, associated marital and sexual consequences, and treatment stage-wise effects on psychological health. The role of MHP during the earlier days was to find the most eligible patients for *in vitro* fertilizations (IVFs) and was restricted to determining suitability for donor programs. They were usually involved with the pretreatment screening and preadoption assessment. With time, this role changed to pretreatment counseling that catered to a larger group of patients, with the idea of developing models for meeting the emotional needs of patients during difficult treatment choices and stages. In addition, counseling was found to be helpful in preparing couples for treatments and protecting them from worsening mental health. Researchers began to believe that tailor-made interventional programs were beneficial for minimally distressed (about 80% of infertile patients) and especially advantageous for the high-risk population (20%–30% of patient population with depression/anxiety).[3-6]

In 1980s, the role of MHPs was expanded to enroll them as team members in third party reproductive programs (donor sperm, donor oocyte, donor embryo, multifetal pregnancy reduction, embryo disposition, and donation) as novel challenges were identified within families and children born out of fertility treatments.[1] The period from 1990s–2017 recognizes the need for evaluation of psychological interventions as several modules of infertility counseling have mushroomed. It also stresses on the development of collaborative care model for infertility and application of evidenced-based interventions for handling psychosocial issues in infertility.[1,7-11] Such perspectives mandate the need for MHP as an onsite professional in infertility clinics and highlights on the need to tackle three sources of treatment discontinuation, namely:

1. Patient-related outcomes (negative individual and couple attitudes, low emotional tolerance, psychological vulnerability, and relational strains)
2. Clinic-related outcome (infertility team related and patient care, technology related, and environment related)
3. Treatment-related outcomes (physical burden, disruption of social and work life, and low prognosis issues)
4. In the background of these historical developments, the subsequent subsections present a brief outline of the role of MHP in improvising the work environments, creating better patient satisfaction, pregnancy outcomes and in optimizing the success of ART, at infertility clinics.

Patient-centered Care versus Structured Psychological Interventions in Infertility

As described earlier, from the 1960s and onward, a voluminous amount of research started emerging describing the psychosocial consequences of infertility. This was the time when unexplained infertility became a diagnosis of exclusion, fertility treatments were invented, and so the psychogenic model of infertility (sterility being rooted in unconscious psychodynamic conflict) became unpopular. The 1970s was the era that witnessed the dawn of IVF, the fall and rise of new reproductive technologies and the glorious birth of the first test-tube baby delivered by Dr. Steptoe and Edwards named "Louise Brown." Alongside these developments, the notions of "Patient-centred care" also emerged.

Patient-centered care

Patient-centered care was the psychosocial care of patients provided at clinics as a part of routine service along with other medical treatments. Barbara Eck Menning was the first to talk on patient-centered care. She propagated that emotional support was expected to be delivered by all members of the infertility team at all times. It differed from structured psychological interventions such as counseling and psychotherapy as it did not require any professional training in psychology. It ranged from services that involve answering common questions, providing support after distressing events like abandoned cycles and negative pregnancy tests, providing documentary resources on stress coping, written or audiovisual information of processes and treatments, provision of cost-effective treatments and access to support groups. It is a common belief among researchers that offering patient-centered care at clinics not only improves emotional well-being while lowering maladjustment among them, but it also increases the patient's compliance to fertility treatments.[12-14]

Infertility counseling

Fertility counseling is a service offered by trained MHPs to individuals who plan or are undergoing fertility treatments to help them deal with the psychosocial consequences of infertility.[15] It aims to address the extraordinary situation-specific needs of patients (such as in times of high distress, in pregnancy after infertility,

in multiple pregnancies, while facing the end of medical treatment, while entering third-party donor programs) and is implemented in several formats such as individual, couple, and group.

International guidelines[15] propagate that infertility counseling is believed to be different from the usual disease orientated gynecology and obstetrics consultations as it focuses on:

a. The emotional crisis associated with unfulfilled wish or life goal
b. The medical treatments required to meet this wish commonly consists of repeated cycles of interventions which have a narrow success rate
c. The long-lasting wait creates frustration, disappointments, desperation and additional marital, familial, and interpersonal stresses
d. The intracouple dynamics often gets affected as the evaluation and diagnostic procedures impact the intimate lives and personal well-being of couples
e. Literature elaborates that there are three kinds of psychological services offered for patients before, during, and after major treatments.[16] These are:
   i. Informational gathering and implicational counseling: It includes providing sufficient information about the medical aspect, understanding this information, outcomes of choices for patient and their families and child born out of treatment, so that most appropriate course of action can be taken. The realm of patient-centered care covers this mode of counseling before and after treatments
   ii. Support counseling: It concerns with providing emotional support to patients in distress that arises from multiple sources (personal, family, or treatment-related such as delays, failures, intensive phase of procedures, waiting periods, decisional conflicts related to continuation or end of treatment, and so on). It aims to aid the patient to use their resources to cope with situations in and outside the clinic
   iii. Therapeutic counseling or psychotherapy in infertility: It is more intensive in nature and is offered exclusively by an MHP (Qualified and licensed psychiatrist, psychologist, social worker who has a working knowledge of reproductive psychology and infertility). It consists of handling complex psychological processes in couples such as reflection on crisis associated with them, grief work, acceptance of the situation, understanding the meaning and impact on life, working on alternative life concepts, conflict resolution, cognitive restructuring, developing coping strategies and finally, dealing with specific issues such as sexual, marital and other interpersonal problems

In addition to the ones mentioned above, the recent guidelines on multinational trends emerging from jurisdictions in UK, USA, Australia, Canada, Switzerland, Spain, Europe, and Germany on key elements of psychosocial care in infertility emphasise on the legal mandate for counseling, guidelines for assessing the eligibility credentials for MHPs working in infertility clinics, and two additional types of MHP services.[17] These are:

   iv. Decision-making counseling: This is made available for couples at significant points and facing conflicts in their decision-making for treatment management
   v. Crisis counseling: This form of intervention is for those patients who have had stable personalities and adjustment capacities, nonetheless are facing coping issues due to an acute or chronic infertility crisis.

Guidelines on Determinants of Patient Needs and Suitability for Structured Psychological Interventions

Research evidences[15] suggest that the following categories of patients are most in need of professional psychological aid during treatments:

- Those who are using donor gametes, adoption, surrogacy
- Those with elevated stress, anxiety and depression. Furthermore, risk factors identified for high distress include personal factors (women particularly, having primary infertility, history of psychological/psychiatric morbidity, those who perceive parenthood as most central life goal and cope with avoidance strategies), situational factors (marital discord, low social support, and inhabitants of stigmatizing sociocultural milieu) and finally treatment linked (experiencing side effects of treatment, are in the first or last cycles of treatment, having recurrent pregnancy failures, persistent treatment failures, who are treatment resistant, and undergoing fetal reduction)
- Those who require genetic counseling
- In addition, the objectives of interventions should be such that they suit the extraordinary situations of patients (requirements in high distress, facing pregnancy (single versus multiple) after treatments, planning the end of treatments, undergoing sexual issues, and for those involved in migration), counseling in third party and social infertility.

Patient Needs and Staff Recommendations in Different Phases of Treatment

Research evidence describe that the needs of patients are different in various phases of treatment, i.e., before,

during, and after treatments.[18] In a similar vein, as per a recent systematic review and meta-analysis, the infertility staff is advised to make efforts to address the psychological needs of patients in every phase of treatment.[9] The following sections describe the patient needs and staff recommendations for different phases of medically assisted reproductive treatment as per the recent guidelines proposed by the European Society of Human Reproduction and Embryology.[9]

Before treatments

The infertility team should be aware that as per international estimates, barely one-tenth of patients seeking consultations or planned for treatments may actually undergo them.[19] This may be due to several reasons (ethical, disinterest, personal, financial, psychological, and relational). Certain characteristics of the treatment and the clinic staff also cause disinterest in seeking treatments (such as negative staff interactions, low competence, unclear communication, not involving both partners of couples in decision-making, hurried decision-making, patient disrespect and uninvolvement, low opportunity to contact other patients, low psychosocial care, and insensitivity to distinct needs of patients as per their medical histories). Thus, general recommendations that the infertility team should follow before treatments are addressing the health beliefs, lifestyle behaviors, encouraging behavior change for enhanced reproductive health and fertility, assessment of emotional needs of couples (behavioral, relational, emotional, cognitive, marital, and sexual), imparting of knowledge and preparatory information for all patients (both partners) before treatments and suitable referrals to an MHP for the highly distressed subgroup.[9]

During treatments

Staff should be aware that as per international estimates,[19] one in 12 patients will not comply to first-line treatment protocols due to factors such as treatment rejection, postponement, difficulty in arranging logistics, perception of poor prognosis, and high psychological burden). Reasons behind discontinuation from treatments after the failure of first cycle are namely financial, psychological and physical burden, clinic-related factors, organizational problems, postponement, and relational problems with partner.[9] The need for intimacy from partner and from significant others is more often expressed by infertile women undergoing treatment cycles than those in normal menstrual periods.[15] Women suffer from emotional distress, fluctuations, and disturbances more than men.[15,16] Periods of oocyte retrieval, embryo transfer, wait before pregnancy tests, and following its results are most critical.[20,21] Men report greater relational and social isolation during cycles. Both partners report worries if occupational stressors emerge due to prolonged medical leaves.[15-21] Distress is often shared and distributed in each partner in couple as they represent a single psychological unit. Educational status, occupational status, psychological support, acceptance, helplessness, coping are core mediators of infertility stress in men and women.[9] When treatments fail, two in ten women report depressive symptoms.[20,21] When IVF/intracytoplasmic sperm injection fails one in four women and one in ten men report depressive symptoms.[22,23] During the same time one in seven women and one in twenty men report anxiety symptoms.[22,23] In view of the above needs, the general recommendations for staff to apply for patients undergoing treatments are to make appropriate and timely referral for counseling and psychotherapy, actively involvement both partners in one-to-one discussion, doubt clarification, deal with psychosocial concerns, offer care and decisional support, improve well-being/depression/self-efficacy, and finally, discourage use of internet-based health resources as these do not improve mental health.[9]

After treatments

The infertility team should be conscious of the fact that needs of those with unsuccessful treatments vary from those who experienced successful treatments.

Needs of those with failed cycles

Data suggest that 5 years after failed cycles childless patients are more likely to involve themselves in substance abuse and dependence (of alcohol, tobacco, and benzodiazepines), than those who become parents by adoption or spontaneous conception.[24] Marriages of infertile couples are three times more likely to end up in separation and divorce.[25] Three to 5 years after treatment failures a persistent desire for parenthood in subfertile women is associated with depression and anxiety in them, when compared to a group that involved themselves in other meaningful life goals.[20,21] General recommendations for staff handling this group of patients consists of arranging MHP services for those with high distress after failed cycles.[9]

Needs of those who experience pregnancy after treatments

Evidences suggest that the lifestyle behavior and parent-infant bonding in women who conceive with treatments is equivalent to those who have a spontaneous conception.[26] Comparative studies of pregnancy experiences in women who have assisted conception versus a group who had a spontaneous conception reveal that the overall levels of distress, self-esteem, and psychological health remain the same.[27] However, the

former group of women experience greater anxiety since they had a difficult conception, have worries related to the viability, gestation, and live birth of the fetus.[27] Women with multiple pregnancies experience higher stress from raised expectations and stress than women who have a single pregnancy following treatment.[28] General recommendations for staff who handle this group of couples consist of sharing information, preparing, discussing, and clarifying worries related to outcomes of their pregnancies.[9]

Grey Areas of Psychosocial Programs in Infertility: Patient Acceptance of These Services and the Inclusion of the Marginalized Men in Conventional Programs

Patient acceptance of psychological services

Review studies urge that most distressed couples express a need for psychological support, however, <25% (15 out of 62) take up professional services and 5% (4 out of 62) seek support group services even when offered for free. Reasons stated for same are lack of understanding about psychological interventions, practical time, and occupational constraints.[29] Data also suggests that barely 18%–21% patients (maximum of 30 out of 143) attend sessions when made available and most couples attend one to three sessions on an average.[3,4,7,30] In addition, these studies suggest that this trend can be explained majorly by three factors.[3,4,7,30] First is the variability of distress in those seeking treatment. Second being the coping resource adequacy. The last is the presence of good quality documentary psychosocial support (in the form of written informational leaflets, pamphlets, and electronic resources). Evidence show that patients who are less distressed cope fairly well, they take up family or spousal help and seem less interested in professional psychological help. A small percentage of the ones who are high in distress enter psychological interventions programs as they realize that they are unable to handle their distress and fear that it might get worse over time. Besides this group, a majority of highly distressed patients resist entering psychological treatments mainly due to cost factors and personal factors (they feel they can manage their worries or have less information on when and where to seek help).[3,4] Research also supports that patient availability for therapy during intrauterine insemination and IVF is a critical agenda and willingness for psychological intervention is the first issue that has to be sensitively handled by medical team. The infertility team need to communicate clearly that an option of psychological counseling, and therapy is available to the couple to aid them in coping with infertility and the treatment process rather than exploring hidden personal failures or psychogenic causes of infertility. Contacting the distressed couples personally increases take-up rates of therapy.[3,4,29,30] Availing therapy would aid the couple in reducing emotional distress, developing new perspectives, and scope of action rather than submitting to unrealistic expectations, blame, guilt, resignation, and hopelessness.[31,32]

Refocusing on Psychosocial Needs of Infertile Men and Their Inclusion in Conventional Psychological Treatment Programs

A vast body of research indicates that infertility is a joint struggle of the couple in which partner coping is crucially important to negate distress.[33-39] Emotional distress in any one partner is likely to resonate within the marital dyad and deplete the overall quality of life. Mutual understanding, communication, affective validation, and coping are mainstay for maintaining each partner's psychological well-being.[32] A review of available research shows that the database is flooded with potential evidences on psychosocial needs and guidelines for infertile women whereas the same is lacking for infertile men. Recent literature reports that the "infertile man's struggles with infertility and his unique needs" are often overlooked and left unaddressed in conventional psychological research and treatment pathway.[40-52] Moreover, results from these investigations suggest that men (husbands) suffer from repeated treatments as much as their wives and face difficulties in emotional adaptation to involuntary childlessness. Furthermore, these findings are due to the fact that infertile men in comparison to women tend to repress their grief and emotions and are far less expressive about their psychosocial problems. Men face greater self and social stigma related and which is why they show a general disinterest toward seeking mental health services.[40,46,47] Recent guidelines[48-53] on psychosocial care for subfertile men propose that interventions for men should exclusively focus on:

- Addressing the unique issues and ambivalence surrounding accessing psychosocial care particularly in male factor infertility
- Provision of a male psychotherapist to ease communication; channelize gender-role conflicts surrounding infertility and sexual issues
- The infertility clinicians should introduce psychological interventions as an integral part of comprehensive care offered at infertility clinic. Psychosocial programs should be delivered an inclusive part of medical infertility regimens

- Providing testimonials of other men who have accessed psychosocial care
- Avoiding use of pejorative language (replace use of "consultation with shrink", or "psychological evaluation" with "best practise treatment schedule", and "routine care"). Moreover, rename therapy sessions as meetings, consultations, or conversations
- As men prefer oral to written information including pretreatment educational sessions is beneficial. Additional informational materials can also be supplied to them
- Explanation of the benefits of psychological programs for men and women in couple formats and normalize experiences rather than excluding men altogether from such programs.

Evidence-based Studies on the Application of Psychological Interventions for Infertility

Research on objectives and types of psychological intervention in infertility

i. Focus and objectives of psychological intervention in infertility: A recent review extrapolates that the need of the hour is to focus on building competence in MHPs working in infertility clinics for handling psychosocial issues of infertility. As per national and international guideline, the provision of psychological counseling in infertility is deemed mandatory.[10-54]
ii. Training the medical staff and MHPs working in fertility sciences to administer standardized screening assessments and match patient needs to modules of various intervention
iii. The MHP should be competent and have a good working knowledge of the various causes of infertility, psychological stress, and it's sociocultural and gender-specific implications and the possibilities offered by the various treatment modalities
iv. The MHP should be able to help couples curtail their unrealistic expectations and demands and deal with their fears and anxieties
v. In addition, he or she should address gender issues and build it as a positive resource for administering couple-based tailor-made coping programs
vi. Refocus on interaction between subfertility and sexual behavior in couples
vii. Handle the complexities associated with third-party conception as these are increasingly becoming popular.

In keeping with the myriad of psychosocial consequences faced by couples with involuntary childlessness, the foremost goal of psychological intervention should be to develop a support system for the couple that enables them to cope rather than discovering conflicts or initiating pregnancy.[55]

Evidences suggest that the objective of an effective module of short-term psychotherapy in such patients aid in.[56,57]

1. Compassionate acceptance of their crisis
2. Acquisition of appropriate ways of communicating their unmet desires and difficulties
3. Refocusing on couple bonding
4. Learning how to deal with their problems constructively
5. Altering maladaptive styles of coping
6. Provision of treatment and procedural information
7. Long-term consequences of choices and handling family building issues when using donor gametes
8. Awareness of extraordinary situations (adoption, surrogacy, embryo donation, etc.)
9. Clarifying, redefining infertility, their life. and externalizing their problems
10. Developing an understanding that inspite of technological advancement acquiring pregnancy may not completely be in the couple's or clinicians hands
11. Setting positively rewarding present and future goals whose fulfillment is not dependent on fertility and childbirth.

In addition, when dealing with the highly distressed treatment seekers, who are most likely to accept and comply to psychological intervention therapies should absolutely focus on emotional ventilation, understanding the of reasons for the past and elevating levels of current distress, distress reduction and management, relapse prevention by dealing with the high-risk factors and situations that predispose to emotional disequilibrium and most importantly coping with repeated treatment failures.[57]

Types of psychological interventions in infertility

Evidence suggest that the interventions in infertility can be classified on two broad categories.[58,59] The first variety involves efforts made to address psychological factors (unconscious conflict, grief, and unresolved childhood fears) to optimize pregnancy and conception rates in patients. These involve some of the early psychodynamic and psychoanalytical approaches. The second variety of interventions caters to broad range of patients and exclusively focuses on reduction of adverse psychosocial impact of infertility and reduction of treatment-related distress. These range from simple education-based interventions to complex couple-based interventions (cognitive behavioral therapy, solution focused approach, acceptance-based therapy, mind and body approach and tailor-made programs containing an eclectic blend of the later interventions). The

education-based interventions are brief, time limited, and the goal is to impart knowledge (medical, and lifestyle), skills training for stress management, simple steps on psychologically preparing patients for outcomes following treatments and these are often delivered in group formats. Review studies suggest that structured psychotherapies lasting for 6–10 weeks are effective in reducing infertility distress.[60-62] In addition, the scope of conventional therapy needs to be expanded to include elements like "Fertility education, information sharing, lifestyle education, providing knowledge of the diagnostic tests and treatments" as these have been proven to promote holistic well-being, sense of personal control, and preparing subfertile patients for prospective treatments.[58,60,63-65]

Research on various psychotherapeutic approaches in infertility

The therapist may adopt one out of many psychotherapy modules or an eclectic approach to deal with psychosocial issues in infertility.[58,59] Some of the therapies are backed by adequate evidenced-based support and these are psychodynamic psychotherapy,[66,67] Cognitive behavioral therapy,[8,64,68,69] strategic and solution-focused therapy,[70] Comprehensive mind and body interventions for targeting distress, conception and burden,[71-73] mindfulness and other acceptance-based approaches in infertility,[74-77] and interpersonal therapy.[78]

Conclusion

With advancing technology, greater efficacy, and safety of fertility treatments, the overall patient-centered care, and staff well-being in fertility programs needs to be addressed.[79] Nationally[54] and internationally,[9,11,15-17] the development of counseling guidelines for infertility is described as a "works in progress." Nonetheless, certain key trends are evident. Literature suggests that over the last few decades the role of MHP in infertility has evolved from a grief or crisis manager and informational/decisional counselor to an active psychotherapist. Recent guidelines[1,8-10,58,59,77,79] suggest that the present role of an MHP is exhaustive. The services of MHP are underutilized as an onsite specialist (during consultations, meetings, and research and grand rounds). His/her expertise should ideally be utilized toward collaborative healthcare facilities. The role of MHP includes:

- Tailoring evidence-based interventions for the management of emotional challenges and treatment burden (before, during, and after specific treatment)
- Helping patients make informed decisions which are unique to their needs, preferences, and deliberate their choices
- Coping during waiting periods before pregnancy tests
- Helping couples prepare for semen samples, multi-fetal reductions, support in the gestational period after conception following fertility treatments, third-party programs
- Offering specific services in complex programs (e.g., in surrogacy: Interventions for intended parents and gestational carriers in surrogacy)
- Developing accessible modules such as e-health (internet based) and m health (mobile health), and other self-health formats for psychosocial care
- Developing and validating tools[79-81] that help in clinical decision-making
- Providing consultancy for staff training in communication-skills, empathy, breaking bad news[82]
- Ensuring extended periods of support and collaborative team programs for staff experiencing burnouts[82]
- Adaptive coping in patients, during critical times such as repeated treatment failures, ending treatments, and for long-term psychological adjustment to involuntary childlessness
- Developing emotional support programs for vulnerable patients.

In addition, optimal assisted reproductive technology in years ahead of us, should aim at reducing treatment-related burden during and after treatments. The "after treatment" period is critical for patients overall health and well-being. It is defined in literature by the period that starts from 1 year after patients undergo their last treatment cycle. Psychosocial management in infertility concerns with evidenced-based pre-treatment psychological screening, referral services, decreasing barriers to treatment acceptance, and delivering emotional support to patients at risk (irrespective of gender, martial, and sexual status) across all stages of treatments.

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Conflicts of interest

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