## THE ROLE OF THE PSYCHOLOGIST IN REPRODUCTIVE MEDICINE

## A DISSERTATION

## SUBMITTED TO THE FACULTY

OF

## THE GRADUATE SCHOOL OF APPLIED AND PROFESSIONAL

PSYCHOLOGY

OF

RUTGERS,

## THE STATE UNIVERSITY OF NEW JERSEY

BY

## SHARA JAN MARRERO

## IN PARTIAL FULFILLMENT OF THE

## REQUIREMENTS FOR THE DEGREE

OF

## DOCTOR OF PSYCHOLOGY

NEW BRUNSWICK, NEW JERSEY

OCTOBER 2013

APPROVED:

Karen Riggs Skean, Psy.D.

Allison Rosen, Ph.D.

DEAN:

Stanley Messer, Ph.D.

2013 by Shara Jan Marrero

#### ABSTRACT

The field of reproductive medicine has grown in size and complexity over the past three decades. Psychologists have played a significant role in this expansion, not only as infertility counselors, but also as consultants, researchers, and psychological examiners. Given the rapid increase in technology, as well as societal trends involving different ways of building families, the field is likely to continue to grow very quickly, and psychologists' roles in the field may become increasingly important. Few research studies have been conducted on psychologists' experiences in the field of reproductive medicine. In the context of the changing landscape of reproductive medicine and the growing integration of medicine and psychology, this qualitative study aimed to explore the distinct experiences and unique roles of the psychologist in reproductive medicine. Twelve semi-structured interviews were completed with licensed psychologists specializing in reproductive medicine. Research questions explored psychologists' daily activities and their experiences of their roles, including professional challenges, rewards, and the experience of interdisciplinary work. Psychologists were asked to discuss their training, whether there were differences between their practice and training, and if so, how they reconciled those differences. The researcher also sought to understand psychologists' conceptualization of the relationship between psychology and reproductive medicine, what psychologists feel others should know about their roles, and how their skills may be best utilized. The interview data collected were analyzed to uncover qualitative themes. Overall, participants believed that their comprehensive training in scientific research, theory, and practice made them especially suitable for work in reproductive medicine. Training in psychological testing was brought up as a

distinct and important contribution. Psychologists saw their contributions as valuable not only to patient care, but to the efficiency and well-being of reproductive medicine practices. Obstacles included their experience of their roles as underutilized and undervalued and the challenges of working within a managed care health system. In sum, psychologists' roles in reproductive medicine are distinct, valuable, and necessary for the evaluation and treatment of infertility patients and third-party candidates. Implications for reproductive medicine professionals and psychologists are discussed, both in terms of research and practice.

# DEDICATION

For my parents, who never gave up.

#### ACKNOWLEDGMENTS

First, I would like to thank the twelve smart, dedicated, talented and passionate psychologists who participated in this study. Their commitment to their work is admirable and was evident in their contributions to this project. Through their participation, they have helped mental health and reproductive medicine professionals, patients, and the general public to more clearly understand their roles in reproductive medicine. They have served as professional role models for me and I am grateful to them.

I thank Karen Riggs Skean and Allison Rosen, both of whom have made large contributions to the conceptualization of this research. Karen and Allison have provided significant academic and emotional support throughout the past two years, without which this dissertation would not have been possible. Karen was instrumental in helping me to develop and narrow down my research focus. She also taught me about qualitative research methods and helped me to navigate departmental dissertation requirements. Allison was not remotely fazed by a graduate student e-mailing her out of the blue and, from the beginning, went above and beyond in introducing me and welcoming me to the talented community of the American Society for Reproductive Medicine Mental Health Professionals Group. She was instrumental in the recruitment for this study and contributed expertise in reproductive medicine.

I also would like to thank Julie Surbaugh, an alumna of the program who paved the path a few years before me in conducting dissertation research on reproductive medicine. Julie generously met with me and shared her knowledge and experiences, and therefore also contributed to the conceptualization of this project. Sylvia Krieger, Alicia

V

Picone, and Arlene Miller have made administrative processes seamless for me throughout graduate school, and I am grateful to them for their dedication to the student body. I thank my many professors and supervisors who have provided mentorship and support throughout graduate school. In particular, I thank Monica Indart, from whom I learned how to conduct a first interview, and Nancy McWilliams, who helped me to understand the importance of listening to the individual.

I thank my friends for their good natured, continued support throughout graduate school. I thank my colleagues from graduate school for running alongside me in this marathon, and my friends from outside of school for reminding me about self-care, and for easily understanding busy schedules. Last, I am grateful to my partner, Ben Brofman, our parents, Jacinto and Sheila Marrero and Alice Brofman, and our families, for their values, work ethic, and unconditional confidence in my work, as well as for their considerable emotional and logistical support over the past five years.

# LIST OF FIGURES

Figure 1 Breakdown of Professional Activities	. 2	1
---	-----	---

# TABLE OF CONTENTS

	PAGE					
ABS	TRACTii					
DEI	DICATIONiv					
ACH	NOWLEDGEMENTSv					
LIS	Г OF FIGURESvii					
CHAPTER						
I.	INTRODUCTION AND BACKGROUND1					
	Background7					
II.	METHODS					
	Participants					
	Materials14					
	Procedure15					
	Recruitment15					
	Demographics15					
	Data Collection and Treatment of Data16					
	Data Analysis, Quality, Validity and Reliability17					
	Security, Confidentiality, and Risks to Participants 18					
	The Role of the Researcher19					
III.	RESULTS					
	Professional Activities					
	Professional Roles					
	How Professionals Became Involved in Reproductive Medicine26					

Participants' Current Professional Roles as Compared to Early Professional Experiences	1
The Relationship between Psychology and Reproductive Medicine33	
Theoretical Orientation	
Challenges and Rewards of Being a Psychologist in Reproductive Medicine	
Psychologists' Unique Roles in Reproductive Medicine55	
What Professionals and Patients Should Know about Psychologists' Roles	
The Experience of Participating in this Study	
IV. DISCUSSION	
Professional Activities and Roles	
How Participants Became Involved in Reproductive Medicine72	
Participants' Current Professional Roles as Compared to Early Professional Experiences	
The Relationship between Psychology and Reproductive Medicine76	
Theoretical Orientation78	
Challenges and Rewards of Being a Psychologist in Reproductive Medicine	
Psychologists' Unique Roles in Reproductive Medicine	
What Professionals and Patients Should Know about Psychologists' Roles	
Participants' Experiences of Contributing to this Study	
Limitations of this Study	
Implications for Future Research	
Implications for Practice	

Т	he Role and Experience of the Researcher	94
V. C	ONCLUSION	99
REFE	RENCES	101
APPE	NDIX A	105
	Informed Consent for Study Participants	105
APPE	NDIX B	108
	Demographic Questionnaire	108
APPE	NDIX C	110
	Semi-Structured Interview	110
APPE	NDIX D	113
	Recruitment Notice	113

#### CHAPTER I

## INTRODUCTION AND BACKGROUND

Since the birth of the first in vitro fertilization (IVF) baby over thirty years ago, the field of reproductive medicine, a large part of which is Assisted Reproductive Technology (ART), has continued to advance exponentially (Covington & Hammer Burns, 2006). According to the Centers for Disease Control and Prevention (CDC, 2011), infertility is now a "common problem." Approximately 10% of women ages fifteen to forty-four, or 6.1 million women, have difficulty staying or getting pregnant. Although infertility may be caused by medical problems in men or women, societal trends also affect the growing rates of infertility and the use of ART. The CDC reports that women are continuing to wait longer to have children; in fact, 20% of women now have their first child after age thirty-five. Although advanced maternal age is not a sure marker for infertility, approximately one-third of those women have problems with fertility. Further, more groups of people are using ART to have biological children, including single and older individuals, cancer survivors, individuals with genetic diseases who may opt to use donor gametes, and lesbian, gay, bisexual and transgender individuals, who also require the donation of gametes or surrogacy to have biological children.

Reproductive medicine is a quickly growing, evolving, complex field, involving many interdisciplinary providers who serve the needs of infertility patients and their families. Most reproductive medicine medical practices employ physicians, nurses, administrators, laboratory technicians, and researchers in order to serve their patients. Some practices also consult with, refer to, or hire mental health practitioners, including social workers and psychologists, whose primary role is to address the complicated, often profound emotional experiences that tend to accompany patients' experiences with infertility and/or ART. In addition to infertility counseling, psychologists also may conduct research and the psychological testing often required of patients and other reproductive parties, such as surrogates and gamete donors (Covington & Hammer Burns, 2006). The role of any professional individual working in reproductive medicine is now inherently interdisciplinary, and the psychologist's role is no exception.

In the American Psychological Association's most recent Monitor on Psychology,

Belar (2011) writes,

No one discipline has the key to solving major societal problems. However, at the core of many of the world's problems is behavior. That's why, if psychology is to remain relevant as a discipline and as a profession, we must prepare a work force that can address society's most pressing concerns, from health and education to the environment and world peace. We need strong interdisciplinary science and its application through interprofessional practice.

Indeed, psychology and medicine, including reproductive medicine, are merging and appear to be very publicly visible as we move further into the twenty-first century. The television network ABC's popular drama series, "Private Practice," chronicles the fictional stories of patients and clinicians working in a private practice that includes a primary care physician, a psychotherapist, a pediatrician, an obstetrician/gynecologist and a reproductive endocrinologist. "The New Normal," a television comedy on NBC, chronicles the fictional experiences of a gay couple and their gestational carrier. The growing presence of interdisciplinary fields, such as clinical health psychology, and professional organizations, such as the International Society of Psychosomatic Obstetrics and Gynaecology and the American Society for Reproductive Medicine's Mental Health Professional special interest group, illustrate the changing understanding of the relationship between mind and body, including in reproductive medicine. Importantly, as

healthcare policy changes, more psychologists will likely be seen in medical practices, particularly primary care practices. Primary and acute care, as well as behavioral health and long-term services and supports, will combine, and more interdisciplinary care will take place (Centers for Medicare and Medicaid Services, 2013).

Professionals in various fields have advocated for interdisciplinary clinical team work. Kathol, Butler, McAlpine, and Kaine (2010) discuss the advantages and challenges of integrating mental health into primary care. The authors argue that integrating mental health into primary care improves outcomes for patients, but that the greatest barrier to sustainable, integrated care is the financial challenge introduced by separate physical and mental health reimbursement practices. In the interests of cutting costs and helping patients more effectively and efficiently, primary care and other medical fields are arguing to integrate mental health into an interdisciplinary model. Belar writes that psychologists are in a unique place to work in this way, given psychology's "relevance to other disciplines and to complex societal problems." Psychologists' backgrounds in research, psychological testing, teaching, program evaluation, and consultation, in addition to critical training in psychotherapy, make them well-suited to address interdisciplinary issues in health settings, including in reproductive medicine. Still, the unique skills that psychologists bring to reproductive medicine, the varied roles they play, and the challenges and rewards they face have not been fully explored.

This study aimed to qualitatively study psychologists' individual experiences working in the burgeoning, complex field of reproductive medicine. An important goal of this project was to illuminate and generate a better understanding of several phenomena, including 1) the relationship between psychology and reproductive medicine as

interdisciplinary fields in the context of the changing landscape of psychology, 2) the distinct skills psychologists bring to reproductive medicine amongst other related professionals, 3) the special challenges faced and professional needs of psychologists working in reproductive medicine. This study was primarily exploratory. It did not strive to collect large amounts of data to be generalized to a more sizeable group of psychologists. Rather, given the shortage of research in this area from psychologists' points of view, and the predicted variability between participants' experiences, the researcher was able to gain access to a small, particular group of psychologists in order to generate themes and topics that may later inform broader research.

Maxwell (2005) writes that qualitative research seeks to understand the "unique contexts in which research participants function, and the influence that that context has on their experiences." The present research study utilized semi-structured interviews to gather rich descriptions of psychologists' experiences working in reproductive medicine. The qualitative design of this study was well-suited for the unique professional niche it aimed to study. It was expected that psychologists' experiences and roles would vary, and the semi-structured interviews aimed to capture these differences in an individualized way. Through this methodology, the researcher hoped to understand, as Maxwell writes, the "unique processes in which events and actions take place," and the individual meanings experienced by the participants in the study.

As McCracken (1988) writes, the interviews allowed the researcher to "view a particular experience through each individual lens of a participant, within a fuller social and cultural context." This context included how psychologists experience their professional work and identity, as well as the challenges and rewards that accompany the

work. Participants had the opportunity to respond in specific or "broad flexible, unique ways," rather than "readily and unambiguously," for example, as surveys or quantitative designs traditionally solicit. In using a semi open-ended design, unanticipated phenomena and their influences on participants' experiences could be identified and explored, particularly as the researcher was able to respond to and probe participants' unique responses in the moment. In examining research themes, the researcher searched for "patterns of interrelationship between many categories, rather than the sharper delineated relationship between a limited set of them" (McCracken, 1988). Finally, the chosen methodology reflected an important goal of this study, which is that the results generated would be compelling and understandable to varied reproductive medicine professionals, psychologists, and infertility patients, and accessible to the general public. It was also hoped that the experience of participants. Similarly, the research design was chosen with feasibility in mind.

Based on the current literature on the intersection of psychology and reproductive medicine, a few research questions and hypotheses were generated. First, there are apparent changes in the fields of psychology and medicine, and the relationship between the two. Therefore, what are psychologists' understandings and experiences of the relationship between psychology and reproductive medicine? What unique skill sets do they feel they bring to reproductive medicine? Many prospective psychologists may enter their field in order to gain extensive training in the research and application of psychotherapy, but a variety of mental health clinicians are trained to provide psychotherapy, some for lower fees that psychologists charge. Moreover, medical

settings appear more amenable to fast-paced assessments and interventions than to traditional psychotherapy. Another research question explored was: how do psychologists reconcile potential differences in training with the current demands of reproductive medicine?

It was expected that psychologists' current roles will involve psychological assessment, psychometric testing, psycho-education, short-term counseling, research, teaching and consultation. It was hypothesized that psychologists' actual roles may vary from the psychotherapy roles taught in training. Psychologists also might identify primarily as "infertility counselors," relating to that experience more than specifically to psychology, and finding that reproductive medicine calls more for a counseling model than a traditional psychotherapy model. Perhaps some psychologists would not separate themselves at all from other mental health practitioners working in reproductive medicine; perhaps, in a collaborative model, it is best to join identities rather than separate.

Research suggests that psychologists face considerable barriers, including logistical, financial and emotional challenges, in being able to do their best, most effective work in reproductive medicine. It was expected that these findings will be replicated in the present study. Further, this study sought to add to extant literature by gaining an understanding of how psychologists experience these barriers. Recent research has emphasized the value of interdisciplinary work. Some psychologists even identify as being experts in "reproductive psychology" (Jaffe & Diamond, 2011). What is the day-today nature of this work from a psychologist's point of view? Importantly, how can

psychologists in reproductive medicine be professionally supported, and their skills be best utilized, so that patients may benefit?

#### Background

Reproductive medicine is the science of diagnosing, treating, managing, and preventing problems with men and women's reproductive systems. Core to the practice of reproductive medicine is the treatment of infertility. Infertility patients, their partners, and loved ones tend to suffer in myriad ways; women who cannot conceive, due to male or female factor infertility, or who miscarry or have stillborn infants, may suffer multiple losses (Covington, 1995). Individuals who opt to undergo ART procedures face additional complexities: treatments may be physically painful and invasive and may cost considerable money, time, energy, research and logistics. Treatments can have lifelong consequences, and when ART is not effective, patients and their partners also may suffer additional loss or trauma. Patients who experience infertility also may experience guilt, anger, shame, and a sense of failure at the inability to achieve the normal adult developmental task of reproducing (Jaffe & Diamond, 2011). Moreover, there are considerably complicated legal and ethical issues surrounding the preservation and donation of gametes and, in surrogacy, women's bodies. Understandably, the psychological impact of infertility can be significant.

In studying the psychological impact of infertility on patients, Domar, Zuttermeister, and Friedman (1993) discovered that the experience can be as emotionally devastating as a diagnosis of AIDS or cancer. Covington and Hammer Burns (2006) clarify that psychiatric disorders do not occur at a higher rate in infertility patients. Further, most patients do not experience significant psychological trauma or psychopathology; however, "the use of advanced medical technology and/or third-party reproduction, involving a plethora of additional stressors, may increase psychological distress." Smith (2006) surveyed medical practices in the United States offering ART and also interviewed women about their experiences with infertility treatment. She found that of the medical practices surveyed, only 45% offered psychological services on site. Most practices reported that they referred patients for mental health services "sometimes," despite the fact that approximately 63% of practices reported that 20-60% of their infertility patients suffered from depressive or anxious symptoms. Almost all the practices, or approximately 99%, felt that "stressed, depressed, and/or anxious" patients required "more time from staff," and 82% of practices believed that psychological services could decrease this time. Female patients interviewed indicated that practices offered insufficient information on support services, that their emotional needs were not met, and that they experienced dissatisfaction with practices, changed practices, or desired more information. Women believed that having an on-site counselor or support groups would have been "the most effective kind of support service offered."

Most literature reviews the roles of mental health practitioners in general, or "infertility counselors." Psychologists' specific roles in reproductive medicine, if they are distinct, are not well-defined. Still, the growing need for mental health professionals in reproductive medicine is well documented. Covington and Hammer Burns (2006a) cite the guidelines developed by the Mental Health Professional Group of the American Society for Reproductive Medicine to determine the qualifications and training for mental health professionals working in reproductive medicine. The authors write that a qualified

infertility counselor should be competent in the following service areas: psychological assessment and screening, diagnosis and treatment of mental disorders, psychometric testing (psychologists), decision-making counseling, couple and family therapy, grief counseling, supportive counseling, education/information counseling, support group counseling, referral/resource counseling, staff consultation, crisis intervention, sexual counseling and psychotherapy. Mental health professionals need a graduate degree in a mental health profession, a license to practice, training in the medical and psychological aspects of infertility, clinical experience, and continuing education. In the United States, infertility counselors may be psychologists, social workers, marriage/family therapists, psychiatric nurses, or psychiatrists (Haase and Blyth, 2006).

Covington (2006) outlines the "collaborative reproductive healthcare model" that is recommended for effective patient care. In this model, infertility counseling is viewed "along a continuum of the medical process, where the medical and psychosocial aspects of infertility treatment are integrated." This model involves a reproductive medicine practice hiring, consulting with, or referring patients to infertility counselors. Covington also states that infertility counselors must be involved in research on the psychological aspects of infertility, the impact of reproductive technologies, and the efficacy of psychological interventions in some way. Carlstedt (2010) argues that integrative practice is "sorely needed" in an era in which specialization pervades. Haas (2004) discusses medical contexts, including infertility, in which psychological services become critically important to the total health of the patient. Findings also are relevant on an international level: Rosset (2008) argues that psychologists are critical at any stage of reproduction and reviewed the psychological needs of Spanish couples who are infertile (2009). Carmin,

Robinson Kurpius, and Roth-Roemer, (1998) write that counseling health psychologists, in particular, are well-prepared to help women understand the relationship between their biological and psychological experiences, and to help them make informed treatment decisions.

Research suggests that there is much to be explored about the relationship between psychology and reproductive medicine, but psychologists' unique skills and roles remain unexplored, as do their own perspectives on these matters. The organizational and emotional challenges psychologists face have been studied to some extent. Managed care poses a large barrier to psychologists' work, as many insurance companies cover little or no mental health services, including psychotherapy and psychological testing, and many patients cannot pay out of pocket for psychological services. Additionally, many insurance companies prefer to cover monthly psychiatry visits and prescription drugs rather than weekly psychological services, particularly on an ongoing basis. Master's degree level mental health practitioners are often able to provide quality psychotherapy for a lower price than psychologists charge.

Kainz (2002) discusses that although the inclusion of psychologists in medicine may facilitate the achievement of the biopsychosocial treatment model, psychologists face significant barriers to working effectively with physicians and should understand that they are "visitors to another culture." Kainz interviewed and administered questionnaires to physicians working in a medium sized, multi-specialty medical clinic with a Department of Psychology. Physicians indicated that the availability of psychological services that were covered by health insurance or could be offered in a short-term model were important factors when deciding to refer patients to psychologists. Physicians' own education about the value of psychological services was limited; most physicians who participated in this study received "some" to "only a little" information in their training about psychological interventions. Physicians also seemed less likely to refer patients for services when they were unsure if a patient should be referred to a psychologist or a psychiatrist. That is, just as psychologists should understand the benefits of medicine, there is evidence that physicians may need further training about psychology and its benefits. Still, physicians thought patients would benefit "often" from psychological services for infertility as well as other medical problems, including cancer, fibromyalgia, and irritable bowel syndrome.

Although many physicians appear to understand the potential value of psychologists' roles in reproductive medicine services, some physicians are specifically opposed to psychologists' involvement. Walker and Broderick (1999) write that psychologists may be "'psychologizing' a physical problem, assuming psychological problems must exist in infertile people" and "must be treated." Although the authors' arguments were written specifically in the context of psychologists' role in ART involving donor gametes or embryos, in particular, about whether children born of donor gametes should be informed, these opinions represent some physicians' feelings about collaborating with psychologists. Applegarth (2005) discusses a clinical experience in which a patient, her family and a reproductive endocrinologist appeared to assign her the responsibility to decide whether the patient was sufficiently psychologically stable to go through in vitro fertilization. She explores the feeling that she needed to "fix everything" and discusses needing to acknowledge and explain her ethical and treatment limitations in order to work effectively. Psychologists in reproductive medicine typically interact with physicians, nurses, administrators, laboratory technicians, lawyers, and insurance providers, and the management of interdisciplinary work may be sensitive and challenging, both logistically and emotionally.

#### CHAPTER II

#### METHODS

This study was a qualitative research study using semi-structured interviews and content analysis methodology. An application for research on human subjects was submitted to the Rutgers University Institutional Review Board (IRB) in October, 2011 and was approved in November, 2011. Recruitment for this study began in February, 2012, and was to continue until eight to twelve participants were found or until sufficient data and common themes were generated, according to the Dissertation Chair and researcher. Twelve participants were recruited for the study. Data were collected in the form of semi-structured interviews. Data were audio recorded and later transcribed and analyzed by the researcher.

#### *Participants*

Participants were licensed, doctoral-level psychologists who are currently conducting professional work, such as psychotherapy, assessment, research, consultation and teaching, in reproductive medicine. Psychologists were required to show expertise in the field of reproductive medicine, as evidenced by continuing education in this field, as well as membership in professional organizations related to reproductive medicine. Thus, all participants were members of the American Society for Reproductive Medicine Mental Health Professional Group. Psychologists with doctoral degrees in related fields, for example, the Ed.D., Ph.D., or Psy.D. degrees in school or counseling psychology, who identified professionally as psychologists and conducted the aforementioned work were permitted to participate. This project did not study the experiences of psychologists without experience in reproductive medicine or psychologists who did not pursue continuing education and professional organizational activities in the topic. Mental health practitioners other than psychologists, such as social workers, marriage and family therapists, and psychiatrists, also were not studied. Women and minority psychologists were not specifically recruited, but were encouraged to participate if they met the research criteria. In the interest of interviewing participants in person, an effort was made to recruit psychologists who practiced in the Greater New York Area; however, an insufficient number of participants was generated from this region and the researcher expander recruitment to other regions within the United States. Psychologists from other geographic regions also were included in the interest of increasing the diversity in participants and their responses.

## Materials

The main instrument for this study was a semi-structured interview guide (Appendix C). This guide was developed by the researcher in order to gather detailed, unique descriptions of participants' professional experiences working in reproductive medicine. The guide explored the types of professional roles psychologists have, the challenges and rewards of working in various settings and with various professional individuals, psychologists' motivations to enter the field, psychologists' understandings of the intersection between psychology and reproductive medicine, and psychologists' opinions about their unique skills and contributions to reproductive medicine. The interview was designed to be administered within approximately one hour to an hour and a half. Participants completed a short demographic questionnaire (Appendix B) prior to beginning the interview.

#### Procedure

#### Recruitment

Twelve psychologists working in reproductive medicine were recruited via the Mental Health Professional Group of the American Society for Reproductive Medicine electronic listserv, of which the researcher, as well as the second committee member, Dr. Allison Rosen, is a member. The researcher obtained IRB approval from Rutgers University to post an advertisement (Appendix D) on the listserv. A pilot interview was conducted with Dr. Rosen prior to formal data collection.

#### Demographics

Participants consisted of twelve licensed psychologists with expertise in reproductive medicine, as evidenced by membership in the American Society for Reproductive Medicine's Mental Health Professionals Group. Eleven of these psychologists were female and one was male. The average age of the participants was fifty-three, with a range of ages from thirty-eight to sixty-four. All twelve participants described their race as Caucasian and non-Hispanic, with two participants describing their ethnicity as Jewish, and one as having other European heritage. Of the twelve interviews conducted, six participants were interviewed in person and six participants were interviewed over the telephone. Participants represented seven states across the United States. The duration of the twelve interviews ranged from thirty-six minutes to seventy-six minutes, with an average duration of sixty-four minutes.

#### Data Collection and Treatment of Data

Potential participants who contacted the researcher were screened by electronic mail to ensure that they met inclusion criteria for the study. If a participant met inclusion criteria, a consent form (Appendix A) was sent in advance by USPS mail or electronic mail, or provided in person for some of the in person interviews. Consent forms were signed in person or sent back via electronic mail or USPS mail if participants were not interviewed in person. Consent forms sent back via electronic mail were printed in hard copy form and then deleted electronically. Interviews were scheduled via electronic mail or by telephone. Interviews took place in participants' professional offices or over the telephone. Participants also completed a short demographic questionnaire that was provided in person or sent by electronic or USPS mail to the researcher. The researcher reviewed the confidentiality agreement in the consent form and emphasized the importance of establishing a comfortable level of personal disclosure in the interview. Participants verbalized and indicated in writing an understanding that, as a voluntary participant, he/she had the right to abstain from answering a question or discontinue the interview at any point if he/she chose without penalty. Participants were reminded that the interview would be audio-taped for data collection purposes. The researcher has sole custody of the digital audio files, which are kept on a password protected, external computer hard drive in a locked area and digitally de-identified for the duration of the study. All of the personal information obtained during the semi-structured interviews and research process was anonymous, and participants' identities were not associated with their responses on the demographic questionnaire or in interviews. Each participant was

assigned a code number, with which the digital audio file is labeled. Consent forms are stored in a secure location, separate from the transcripts.

Participants' confidentiality in this study was of the utmost importance. The professional community of psychologists working in reproductive medicine is small and close-knit. In order to produce valid, compelling data, it was also deemed critical that participants feel comfortable discussing their professional experiences openly. Consequently, in this study, results are organized and discussed by theme, rather than as case studies, or as attached to a particular participant's identity or individual demographics and personal story. When quotes from transcripts are used in order to emphasize a theme in the final dissertation, participants' names are not used. Some identifying names of places and other people also are removed in order to maintain confidentiality.

All electronic documents were password protected and no identifying information appears on the documents used for analysis. Three years after this study has been completed, consent forms and digital audio files will be destroyed. If the researcher chooses at that time to maintain data from this study in order to present or publish it, all procedures related to security and confidentiality will be strictly followed. All electronic documents will be deleted and all paper documents will be shredded.

#### Data Analysis, Quality, Validity and Reliability

Each digital audio file was transcribed by the researcher. Interviews were then analyzed qualitatively. A coding system was developed by the researcher for the participants' open-ended responses using content analysis methodology. Emerging ideas and concepts across responses were identified, categorized, and examined from individual details to more general observations and themes (McCracken, 1988). Participants' statements and utterances were condensed into more succinct text using meaning condensation. (Kvale, 1996). Subsequently, the interviews were compared to each other to identify common and unique themes. The ideas and concepts found to occur most frequently across interviews are highlighted in the final dissertation.

#### Security, Confidentiality, and Risks to Participants

Participants' responses were kept secure, confidential, and de-identified. There were no foreseeable major risks to participants. A minor risk of participating in this study was that participants could experience emotional discomfort while thinking and talking about the issues involved in this study. Participants signed a consent form and verbalized the understanding that if at any time they were to become uncomfortable while thinking about or responding to a question, they should feel free not to answer the question or end the interview. Or, responses could be generalized instead of personally specific. There were no direct benefits to participants and no deception was used in this study. By sharing their professional experiences, participants helped physicians, nurses, technicians, administrators, other mental health practitioners, patients and families gain awareness of psychologists' contributions to interdisciplinary work in an important, growing medical field. The researcher also hopes to facilitate greater sensitivity and attunement towards psychologists' challenging experiences and professional needs working in reproductive medicine.

The Role of the Researcher

The researcher chose to explore her role as a participant observer in the qualitative research process as a way to understand the emotional and intellectual relationship that the qualitative researcher may develop with the research participants, as well as with the themes of the material elicited. Exploring the role of the researcher in this qualitative project also helps to illuminate the cultural context in which the themes of this dissertation take place (Dalton, Elias, and Wandersman, 2007).

#### CHAPTER III

#### RESULTS

#### **Professional Activities**

A main focus of this study was to discern the unique roles of psychologists working in reproductive medicine, compared to the roles of other reproductive medicine professionals, as well as compared to the roles of psychologists in other specialty areas of mental health practice. Participants were first asked to discuss where they worked, in what type of setting, and what professional activities they were involved in. Nine participants reported working in private practices, including group practice, and three participants reported working within a reproductive medicine center. Nine participants identified themselves as working full-time, and three participants identified themselves as working part-time. Participants reported working an average of thirty-one hours per week, with an average of 74% of professional time spent on work related to reproductive medicine. Participants had been working as licensed psychologists for an average of twenty years, with a range of years since licensure from six to thirty-seven. Participants had been working in the field of reproductive medicine for an average of seventeen years, with a range of years working in the field from six to twenty-nine.

As a way to illustrate exactly how psychologists with expertise in reproductive medicine spend their time, participants were asked to report the number of hours that they typically spend on various professional activities each week. Participants reported spending a weekly average of fifteen hours doing psychotherapy, i.e. psychotherapy for at least twelve sessions, and nine hours doing counseling, i.e. short-term clinical interventions, psycho-education, coping skills training, both including individual, group, and couples work. Participants reported spending a weekly average of approximately three hours doing psychological assessment, e.g. clinical interviews, two hours performing psychometric testing, e.g. administering objective measures of personality, five hours doing research, two hours teaching, two hours consulting, one hour doing program evaluation, two hours providing supervision, one hour providing mentorship to other clinicians, and five hours doing other activities, including writing, giving professional talks, and engagement in administrative activities. The below chart illustrates the average proportion of hours spent on weekly activities among the twelve participants. Participants' professional experiences are explored in the following section.

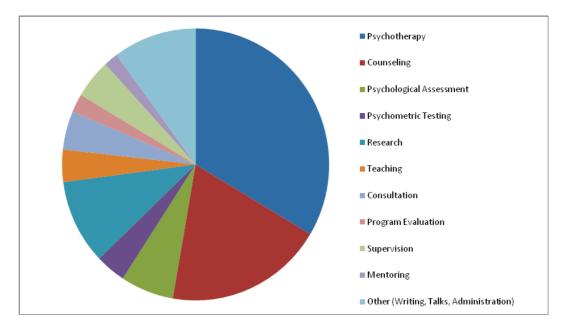


Figure 1: Breakdown of Professional Activities (Hours/Week)

## Professional Roles

Participants identified having a variety of types of expertise within reproductive medicine, including providing third-party reproduction evaluations, psychotherapy and

counseling around infertility and other reproductive and sexual issues, working with families of children conceived from donor gametes, and specializations in mind-body therapy and couples therapy. Participants reported doing a considerable amount of interdisciplinary work with other professionals in the field of reproductive medicine, including reproductive endocrinologists, internists, embryologists and other lab technicians, nurses, administrators, social workers, and lawyers. In general, participants reported spending approximately half of their professional time doing direct psychotherapy or counseling, and about half of their time doing related activities. One participant working within a reproductive medicine center described her varied and

complex roles,

So, what is it that I do in my job? I wear a few different hats. I have an evaluative hat. I do the psych evals for our egg donors. And I also do the evaluations for known-donor cases and gestational carrier cases... Everybody who gets evaluated gets a clinical interview and psych testing. The primary instrument that I use is the Personality Assessment Inventory (PAI). From time to time I'll throw in something else, but that's the primary one that everybody gets. Leading out of that involvement in third-party reproduction, I also meet with- there's a required psychological consultation meeting with everyone who will be a recipient in our program. So that's technically a one-time session, although depending on the kinds of concerns of questions people have, it may be two or three sessions. For the most part, the vast majority of people come for a one-time session. And I found that I was saying the same thing over and over again, so I actually turned it into a small group session, sort of like a group therapy, but it's not really. I sort of refer to it as a class... So those are my evaluation roles and required consultation. Beyond that, I do therapy. I meet with individual women, sometimes men, there's less of a demand, but I certainly have those cases. I see couples and run a mind-body coping skills training group. I have a lot of little different projects going on. Clinical work is certainly both something that I really enjoy and feel very invested in, but I've always been interested in doing other things, as well. Clinical work is also the thing that's the greatest demand. But I have certainly been involved in research projects. I've written a study that we got off the ground, the IRB application, and we're doing data on that, but that's not a primary thing that I do. We also did a survey of our patients to find out what sort of stress-reduction services might they want, what sort of alternative medicine things might they be interested in. And then, based on that, we decided that we were going to implement an on-site acupuncture program. So, those have been some of the kinds of things that I've been involved in. I also supervise graduate students in clinical psychology.

The aforementioned participant was engaged in a large portion of the professional activities that psychologists working in reproductive medicine may be involved in. Other participants wore fewer "professional hats" and were engaged primarily in providing psychotherapy to reproductive medicine patients and their families. They described private practices, some of which focused on psychotherapy and counseling around infertility and third-party reproduction, but others of which were not entirely devoted to reproductive medicine work. One participant explained,

I am predominantly a private practitioner. So, I see people who are referred to me with issues around infertility. In the last year, for example, it's included somebody who needed a therapist to talk through her experience of infertility. Another person was in treatment in a long-term psychoanalytic treatment with someone, but wanted to meet with her partner, and they wanted to have a venue to talk about the pros and cons of going forward to try to have a baby, because they were both considerably older. So, sometimes it's adjunct to someone's treatment. In the past, I ran some groups for parents [involved in third-party reproduction]. I've participated in weekend workshops. I've gone to conferences, and I do some writing. That's pretty much it... I saw [reproductive medicine] as something additional that I was interested in. It wasn't something that is like my full focus. Most of my practice is regular people who walk in the door looking for a psychologist.

Other participants discussed private practices that expanded on areas of reproductive

medicine beyond just infertility. One participant reported,

If by reproductive medicine work you mean infertility, it's actually pretty low [this week]. If by reproductive work you include infertility, pregnancy and postpartum, then the number would be higher. This week, several of my consults have some kind of marital or depressive or sexual issue precipitated by the birth of a child within the last 2 years. Two are cancer survivors with relationship as well and individual and sexual issues. They all have some involvement of sexual issues, which I consider to be part of the reproductive system. If we include sexual concerns under "reproductive" because it involves the reproductive system, then all of these patients would be reproductive medicine patients. Right now, none are dealing specifically with infertility.

Other participants described careers involving more research, writing, teaching or private

consulting to fertility clinics without in-house psychologists. Overall, the combined

participants in this study were engaged in all of the roles that psychologists working in reproductive medicine take on in current practice.

The three participants who identified as working part-time also all reported having young children. For these participants, the researcher chose to expand the question to inquire further about these participants' experiences balancing motherhood and professional work. These experiences were explored both in terms of how participants conceptualized their roles, as well as how having young children impacted their work with infertility patients. Discussing work-life balance, one participant in private practice reported,

You don't know where your life is going to go, you know? I never thought I'd be working this few hours, and it just sort of, I don't know, the practice sort of grows and shrinks and grows and shrinks in different phases when you're past graduate training. It takes a certain energy to kind of push it up a little bit, and that's hard to find as a working mom, you know. It's easier to- for the most part, it's not just that it's easier- I've pretty much made the decision to focus on my kids because... You know that it's not going to happen again, so you might as well give it your all. So, I pick my kids up from school every day. I spend all that time from after school til bedtime with them. Once or twice a week, always once a week, and occasionally twice, I go back to the office at like 6:00 and have a babysitter that spends a couple of hours with them and my husband comes home and he does the bedtime and whatever. I'm still, like, making sure that they're home and that there are snacks, and homework and food, and most of dinner preparation, and that kind of thing. So, those hours are a stressful time of the day, actually. It's a lot easier to be in your office. [But, you need childcare] if you're going to have long hours, and I guess I just- it's not that I haven't put the energy- I kind of chose that I would be the person doing it. Because once it's done- it only lasts a few years, and then it's over. It doesn't happen again. We have a good time.

For this participant, her private practice provides flexibility, both in terms of how many hours she works, as well as how many patients she may take on at different points throughout her children's development. She spent time working full-time before having children, and appeared to conceptualize her professional role as currently being flexible and compatible with her personal roles. Another participant had a similar experience, but also went on to discuss what it had been like to be pregnant while working with infertility

patients and third-party candidates,

It was kind of a fortunate thing, because [when I got pregnant the first time], my job was more working with egg donors. So, they don't care if you're pregnant! And I was just beginning to build my therapy caseload. And so, I had a couple people where I had to tell this to. But, also, when new patients would call, I would say, I would be more than happy to start seeing you. FYI, before you even come in here, let me just tell you that that I'm pregnant. And so you get to sort of be adjusted to the fact before you decide whether you want to make an appointment and tell me your life story. When I got pregnant with my second child, I had a full therapy caseload. And so I fretted a lot about how this was going to be. And yet, this is my life. And so, essentially, I had a couple- I waited until the second trimester, and I had a couple of people who I was going to tell that day, and they came in, and they would say, my IVF cycle failed. It was interesting, because I had one patient, out of everybody, who was stunned. She was very upset, and she was like, "I don't know if we can continue working together." And I said, "I completely understand, I can give you referral information." It was a hard conversation for both of us. But she came back the next week and said, "Okay, I think I processed it. I think I was just in shock." And for a lot of people, they would say, "Yeah, yeah, I know you're pregnant, so is everybody in my life, but we have this established relationship, and you have this particular skill set that I need." So, it was clinically very rich, and sometimes complicated, more so in my second pregnancy. But it was sort of, this is what's happening, and this is a life experience, and we can work through it. Let's figure that out, or let's decide that we can't work through it. I think I was very clear that I could totally appreciate how this could be a deal-breaker. If you would like to go work with somebody else, let me give you some good names. I was like, I'm not going to choose not to have a second child because of my patients! And once the child was on the way, I was like, I'm uncomfortable, and I wish I didn't have to put my patient in this position, but it's not like I'm going to be getting rid of the baby. This is what I need to do for my life as a person. So it feels like an awkward mix with my life as a psychologist. And it was interesting that I anticipated that it was going to be a much bigger problem than it was. I think you can absolutely navigate having a family and being in this world.

This participant, like the aforementioned participant, was able to successfully navigate

and reconcile her roles as psychologist and mother. Moreover, it appears that her

professional and personal experiences were enriching to each other, rather than serving as

obstacles.

#### How Participants Became Involved in Reproductive Medicine

Covington and Marosek (1999) conducted a survey of mental health professionals and nurses working in reproductive medicine and found that 52% of respondents had a history of infertility, with almost 71% having begun working in reproductive medicine after being diagnosed with infertility. Covington (2005), a clinical social worker, describes her own personal experience as informing her career choice, particularly because she found few resources in reproductive mental health when she was experiencing infertility. Indeed, psychotherapists may, in general, incorporate personal experience in choosing their professional paths. Farber, Manevich, Metzger and Saypol (2005) explore therapists' roles as "wounded healers," as well as having had inspiring mentors and having traits of being intellectually curious and psychologically-minded. The authors also found therapists' predicted career satisfaction to be influential in how they chose their careers, as well as therapists valuing the pleasure of working closely with others. The psychologists interviewed in this study certainly replicated these results, and participants' exploration of the rewards and challenges of their professional work will be reviewed in subsequent sections.

Of the twelve participants in this study, five psychologists, or approximately 42% of participants, identified themselves as having come to the field of reproductive medicine through their own personal experiences with infertility. Seven psychologists, or approximately 58% of participants, identified other reasons for having come to the field. These histories included family members' experiences with infertility, as well as professional interests in related fields, such as health psychology and behavioral medicine. Two psychologists identified first having had expertise in personality testing,

and consequently having been recruited by clinics or reproductive endocrinologists to provide psychological assessment of third-party reproduction patients. Both of these participants identified this professional change as "an accident." One psychologist recalled how she began to be involved with reproductive mental health,

I was in a mental health department within a [different] setting. And we were doing PAIs there. And that's the reason... I went part-time there, and was looking to transition out. The reason I could do [donor evaluations] was that I had the experience with the PAI. I completely forgot about it. So, I initially was doing- at that point, I must've been doing thirty PAIs a month. That's how many donors there were. I did that for about three or four years. And then the practice split up. Basically, a new practice started, and they asked me to come in. So, I stumbled upon it.

Another psychologist identified having a related area of expertise and presenting at a

Mental Health Professionals Group meeting, and then becoming more interested in

reproductive medicine. One psychologist reported that she had become involved in

reproductive medicine through choosing to do graduate work with a mentor who was a

health psychologist. She had been eager to finish her doctorate within a certain number of

years, and this advisor was known to be efficient at helping students do so. She later

pursued post-doctoral training in reproductive medicine. She remembered her early

training experience,

Well, in grad school, I don't know how you felt when you got into grad school, but you think you're going to get out in five years and then you get there, and you hear that average is more like seven or eight, and it's not uncommon for it to take ten. And I said, "No, no, no, I'm going to get [out in] five." I thought, "I'm getting out in five years come hell or high water. I don't care about other people and what the average is." So I asked older students, "Tell me what professor is going to get me out on time. Who's the best to work with, who do I need to hook up with to get me out." And they told me this one doctor, and she was in health psychology research. I was interested in children and families. So I said, "Okay, I guess we're doing health psychology and children and families if I'm getting out of here."

Of the five psychologists who had had histories of infertility prior to becoming

interested in professional work in reproductive medicine, most were of the opinion that

most mental health professionals working in reproductive medicine had also come to the work through their own experience of infertility. One participant opined, "I bet you'd find, like, at least 75% of people." Another stated that she had come to the work through, "personal experience, like so many others." She had been working in mental health prior to her experience of infertility, and, like Covington, began to pursue mental health work within reproductive medicine after learning how few resources existed for patients. A third psychologist had a similar history and described the experience of starting from scratch in finding resources for herself and others,

I went to the library to look stuff up, but there was nothing there. And that sort of started my doing everything I could to get involved and get trained. I started getting referrals because nobody else was really doing this at the time. [There was] nothing. Nothing about the psychological impact. I started... talking to people who did this, and doing whatever I could to get information.

A psychologist's own history of infertility may have a significant impact, both

positive and negative, on her work, including in her relationships with patients, as well as

how she manages her emotional reactions to patients' experiences (Rosen & Rosen,

2005). Participants who had entered the field of reproductive medicine having had their

own history of infertility were asked to discuss how this experience influenced their

work. One participant responded,

It's two sides of the same coin. On one hand, it made it easier because I think it gave me a passion to really care about it. I found it interesting, I still love what I do every day. And, I think the burden is always, as a psychologist, to not assume that your experience is everybody else's. So, it is very- it makes it a challenge to keep yourself out of it. I'd say, that's how it kind of works both for and against. [But] it's easy at this point. My experience was so long ago. It's not a recent experience for me. I think at the beginning, it was just trying to be more conscious of it. Now, it's a moot point. I mean, look, when someone has a devastating loss, it stays with you. But I think that the more you do, the more you get better at trying to leave things at the office. I don't think you can do it entirely.

For this participant, practice, as well as the passage of time, has helped her to contain her own emotional experiences. She has used them to inform, but not predict, her understanding of her infertility patients' emotional experiences.

Another participant also discussed her own experience with infertility and cited the passage of time, and a successful reproductive outcome, as protective against emotional distress related to this work. She also spoke about how "understudied" the topic of therapists' own experiences is in understanding patients' reactions to therapists. She discussed issues of countertransference and transference as they relate to the question of whether therapists should disclose their own histories to patients,

Had I not had my [child], I know I would not have worked in this area. It would've been way too painful. I have strong feelings about not ignoring [my own history]. Some people have very strong feelings that you should never disclose. I disagree. I think it's important. I think depending on the person involved, it makes them feel like you get it. [In my writing], I put my heart and soul into it, and at the end of it, the editor said, "Terrific, now you need to tell your story." And [I was] like, "No, psychologists don't talk about that." And she said, "You need to. You don't have to go into great detail, but the reader needs to trust you." And that's how I feel about patients, too. They need to trust you and they need to know that you get them. And in my opinion, I feel it's important to understand the reasons why they're asking, and what it means to them. It's not just a question and you answer it, and it's done. But to really explore with them, what does this mean to them. I will answer it, and then we need to talk about my answer and how it makes them feel.

Another participant provided the opposite opinion, arguing that the therapist's disclosure

of her own history negatively influences the therapeutic process,

Sometimes, the thing that's much more helpful is just understanding. Just empathy, and really being able to... People can tell if you know. They can tell if you know how they feel. There's a huge difference. And what I get often is, people have been to multiple other people and they have felt very dissatisfied with other mental health professionals. I hear that a lot. And I also hear a lot people saying how much they didn't like other mental health professionals say, "I know how you feel. I went through it." I don't talk about my personal experiences. I tell them that that's not the way I work, I don't think that it's helpful. My life is my life and my experience will be very clear to them in a short amount of time, whether I understand what they're going through. I don't say whether I have or haven't. I just say I don't work that way. But a lot of people complain to me that they went to someone previously who told them, "I understand, this was my story." And it

really made them feel that they couldn't talk about other areas, or they couldn't talk about the area that was the [experience] of the therapist, because they felt that it would hurt their feelings, or they felt that they were pushing them towards one thing or another. And they may not have been pushing them at all, but the patient felt pressure to make a particular choice based on what the choice of the therapist had been. So, that's something I hear a lot, too.

The explanation of the "wounded healer" in Farber, et. al. (2005) may represent

many of the participants who chose to pursue work in reproductive medicine after having

their own experiences. One participant described the somewhat embarrassed initial

reaction she had at her choice of career, but she had then found meaning in the rewarding

aspects of turning something personal into professional work,

You know, in some ways it's what people do in all academic fields. You end up doing... The joke of "me search" is research. It used to bother me that that was what I was doing, and I thought that wasn't good... But a number of my colleagues, particularly one I see in my peer supervision group... She's a lesbian parent, and she's written a lot of articles about gay and lesbian themes. And she said, "It's just what people do. You just work on areas that interest you, and that's what you do." So, I didn't intend to make it such a singular specialty. But it is an area that I want to write about, because the more that I got interested in it, the more I realized there aren't that many people writing in a sophisticated way about it.

Another participant with a history of infertility acknowledged the positive impact that any

life experience may have on being a psychotherapist, including within reproductive

medicine,

A lot of people that go into infertility counseling have had experiences with infertility, myself being one of them. But I don't think that's a requirement to go into the field. Obviously every piece of life experience that you have is helpful to you as a therapist. And that's part of my particular history. But I think that helping people with... People get stuck, and it's such a profound experience for people who want to have families, who have difficulty creating them. It's not hard to feel passionate about helping people with such an important part of their lives. I find it very, very fulfilling and very rewarding, because to me, the thing that's the hardest is that people spend considerable amounts of time feeling stuck, and not moving, frozen. I feel very good at doing what I do, and it's very satisfying to help people move and figure out what's right for them. It's a very challenging and satisfying work to do. People come in in crisis, and when you work with someone in crisis, there's always the opportunity to do substantial change. So, it's very satisfying.

# Participants' Current Professional Roles as Compared to Early Professional Experiences

Given the rapidly changing world of psychology and its integration with medicine, including reproductive medicine, as well as how fast the world of reproductive medicine is changing, participants were asked to explore how their current work compared with their training experiences and early experiences working in mental health. Overall, participants strongly identified with the idea that their careers were significantly different from how they had originally imagined them. Responses around this theme included participants initially not knowing that reproductive medicine existed as a mental health field, or coming into the mental health field when reproductive medicine was a new specialty. Other participants said that they had not imagined having a medicallyoriented clinical practice, and others said that having personal experience with infertility influenced a change in career. One psychologist, who entered reproductive medicine through studies in health psychology, commented,

I didn't know [reproductive medicine] existed. I didn't know health psychology existed. You know, before I started doing it. No, I figured that I would be doing, like, play therapy, and family therapy. And the traditional stuff that you read about when you're figuring out different theories, stuck in grad school.

Another psychologist discussed her original, broader professional plans, and how,

influenced by personal experience, they developed over time into a specialty in

## reproductive medicine,

Is this what I thought I would do when I was in training? No, it's not. Looking back on it, when I was on internship, I was working in a hospital. And at the time I thought it would be wonderful to work in that hospital or a hospital. And it was a time when people weren't hiring, and it was quite disappointing. So there was one point when I thought it would be nice to work in a hospital. Then, [after post-graduate training], I knew that I'd like be in private practice. And I was pretty open. [Reproductive medicine] was an area that I was very interested in. I don't think back then I [thought I] would be spending as

much time in this area. So, I think perhaps I thought [my practice] would be more general. And I do do general [work], as well. And I think that, if I had been younger, I would have done more research. But, lifestyle choices, and things like that. But that's not when I actually was in training. That's just something... if I had been younger. I could have imagined, along the way, going in a number of different directions. I think that I gravitated towards this for a number of factors, some of them having to do with things that were within my reach, things that just unfolded, seeking opportunities as they came along.

A third psychologist, who also had a personal history of infertility, found entering the

field of reproductive mental health just as it started to evolve to be quite an inspiring,

rewarding experience,

When I first went into graduate school, I thought I was going to work with adolescents. And, this came up right away, and one thing led to another. I think part of it was opportunity. I was lucky enough to get into the field when it was coming together. And feeling like I could make a difference. I think I never expected to have the career that I have. I feel so incredibly lucky and privileged to be so involved. I mean, I get to sit on committees. I get to make a difference. How cool is that? I feel very lucky the way my career has turned out to be. I was also [aware that] I needed to make a living. And I said, "Okay, this area wasn't...." It looked like it was wide open, if we could create it. And I think it happened.

Participants whose current professional experiences varied significantly from their training were asked to explore this discrepancy and discuss how they reconciled any differences. Overall, most participants agreed that their graduate training, whether in clinical or counseling psychology, prepared them well for careers in reproductive medicine. Participants identified having learned clinical and research skills that they felt applied to any work in psychology, and were therefore generalizable to work in reproductive medicine. Participants did acknowledge that specializing in reproductive medicine required a considerable learning process, but overall, they felt that their graduate training was adequate in providing them a foundation on which to conceptualize new ways of working. One participant described this experience metaphorically,

[Is my work different from what I imagined?] Totally. But I think that's more because my imagination is limited than I've gone off in some kind of bizarre new direction. Life is more complicated than we imagine. I'll use an operating system and application analogy. I think that the operating system that I got in my training has suited me perfectly well because it taught skills of being a researcher-practitioner. I'm able to go with the literature in terms of what needs to be learned. The application level has changed in that the content wasn't stuff I had learned about in my formal training. I didn't receive any formal training about reproductive medicine when I was in graduate school. [But] I had conceptual tools I needed to learn what I needed to learn.

Replicating results from work by Carmin and colleagues (1998), another psychologist

described ways in which her background in counseling prepared her well for working

with reproductive medicine patients. She described reproductive medicine as perhaps not

straying far from her training,

You know, I never imagined content. I only imagined setting. Very interestingly, probably about five years ago, I found some old paperwork that I had done, which was, I wrote out- I don't know whether it was an assignment or what- but, before the end of my program, someone had- I guess it was an assignment. Write out a description of where you see yourself, and what you want to be doing ten years from now. And it was about more working as a team as opposed to individually, in a mental health setting. And the description of all of what I had written down, short of content, was what I was doing. So I found that to be kind of interesting. And I had never really thought about content.

Other psychologists had pursued related graduate training in health psychology or

behavioral medicine, or had experienced infertility at the beginning of their careers, and

were not as surprised by their ultimate career paths. Nevertheless, overall, the theme of

the growing integration of psychology and reproductive medicine, as well as the

exponential growth of reproductive medicine and reproductive mental health, was evident

in participants' responses and stories.

# The Relationship between Psychology and Reproductive Medicine

Another main purpose of this study was to explore psychologists' understandings of the interdisciplinary relationship between psychology and reproductive medicine, including whether it has changed over the course of their careers. It was expected that, in eliciting ideas from participants, a conversation about psychologists' roles in reproductive medicine would begin. Indeed, participants had lengthy and strong opinions on the issue of the relationship between psychology and reproductive medicine. Most participants spoke about the relationship between psychological services and reproductive medicine, and it should be noted that psychologists understood themselves to bring to reproductive medicine will be explored in a subsequent section.

In discussing the general relationship between psychology and reproductive medicine, major themes in participants' responses included the idea that the relationship between the two fields is obvious, inherent, and important, and that medical professionals' and psychologists' work informs each other. Overall, replicating the results of the survey by Smith (2006), participants strongly suggested that there is not enough integration between the two fields in practice, and that psychological services are undervalued by physicians and underutilized by patients. Many participants expressed frustration over this state of affairs, both in terms of their own professional experiences, as well as the quantity and quality of services offered to reproductive medicine patients. One participant in private practice answered succinctly,

It is so important. And in fact, I think one of the facts that's so frustrating is that we're not influencing [reproductive medicine] enough.

Another participant in private practice advocated for a growing connection between psychology and medicine in general,

Well, I think we have an imbalance in how we've been thinking about things. We've compartmentalized medicine as separate from psychology.

Many participants discussed the general necessity of integrating psychological services

into reproductive medicine and the importance of collaboration between professionals

from different disciplines. A psychologist in private practice commented,

The way I see it, patients have a variety of needs. They have a variety of parts of selves that need to be served going through the process. And we have expertise in different areas that the patients need. So, they need medical treatment, but they also need emotional care. And [the different professionals] have to respect each other's expertise. Not that we can't question each other, because we're all smart people with doctorates who think outside the box and I don't feel like I'm ever above questioning something medically or psychologically. But I feel like there's expertise in different parts of the self that need treatment, and need to work in collaboration so that the patient feels like they have a whole experience.

Another participant, who works within a reproductive medicine center, had a similar

## viewpoint,

I think they're definitely related. I have loved having the close collaboration [with] reproductive endocrinologists. We really view it as a cross-pollination approach. I have learned a ton about reproductive medicine through them, and they've learned a lot about psychology through me. The team really relied on me to help them manage a case that they were very uncomfortable with. And so, we have a really good, symbiotic relationship here. They don't have to try to figure out what to do with [patients]. I think it helps a lot because I'm in-house, so it makes it seem like it's really normal to struggle and need help. Of course, this is a really stressful, painful experience, and we have somebody here all the time to help with that.

A participant in private practice with a background in health psychology discussed the

nonetheless inherent relationship between psychology and reproductive medicine,

It's not a leap at all. I think medical issues and psychology go hand in hand, because it's not just about the medicine, and it's not just about the psychology. I find the medical part fascinating, but I'm not compelled enough that I wanted to go to medical school. This is a natural fit for me. So, I think that psychology helps support patients. You know as well as I do, the biggest reason for dropout is the stress and the emotional aspect. And there's a lot going on. Having said that, most people don't utilize the psychological services. So, I find it endlessly fascinating and challenging.

Overall, psychologists across professional settings, including both private practice and reproductive medicine centers, agreed on the intrinsic relationship between psychology and medicine.

A few participants alluded to challenges posed by managed care in how effectively psychology and reproductive medicine may be integrated in practice. One psychologist identified psychology as having a critical role not only in addressing reproductive medicine patients' needs, but also for helping practitioners to navigate complex ethical and medical issues,

The physicians I've worked with I consider colleagues. The nurse practitioners I work with I consider colleagues. I think we should help each other. I think we're both professions that are fighting against the insurance company fueled economic destruction in healthcare in America. I think we need to help each other stay patient-focused when there's such an incredible pull to protecting a plan, rather than serving the patient. Specifically, with psychology and reproductive medicine, technological possibilities have so far exceeded what we are psychologically capable of understanding and emotionally processing that I think psychology is a facilitating process for reproductive technologies. I think that psychology serves as kind of a break on technological developments. The psychological limitations of who we are as human beings allow us to begin to differentiate between that which we can do and that which we shouldn't do.

Another psychologist also discussed the hierarchy of professionals working within

reproductive medicine and then pointed to the underutilization of psychological services

posed by managed care,

Well, reproductive medicine is a medical model. And, it's really unfortunate that there is this hierarchy with medical doctors, I think, not valuing the education and training of non-medical professionals. And this is something in the general public. I think that there are varying degrees of them being psychologically-minded. But a lot of them are not. And, we think in very different ways. We have a lot of things to offer. And there is, because of modern-day life and managed care, and all sorts of other constraints, there's a big gap, I think, between what we can offer and what they can actually use. So I think that we have a vast amount... We're underutilized. Within the field of the doctors and the whole medical community. I think outside of that, certainly anybody who knows how to find their way into the office of someone who understands this field benefits enormously.

One psychologist with a background in counseling psychology wondered if psychologists and physicians understand the relationship between "psychology" and reproductive medicine to refer to "psychopathology" and reproductive medicine. Echoing Covington and Hammer Burns' (2006) work that showed that psychiatric disorders do not occur at a higher rate in infertility patients, she emphasized the importance of not pathologizing reproductive medicine patients.

You know, it's funny, because my first line of thinking is not psychological. It's, okay, is there any medical underlying issue? And it strikes me that the MDs think- their first line is, there's something wrong with this person psychologically and that's what's creating this problem. Not from a reproductive medicine perspective, just maybe in terms of how they're dealing with it. What they're presented. Maybe it's anxiety, even depression. They may see a set of symptoms that they're going to automatically characterize as psychological. And I'm looking at it from the perspective of, is there anything that's making this happen for this person? From a physiological perspective. And I don't know whether that addresses the question. But, there's the mind-body kind of connective issue that I think needs to be addressed in conjunction with each other. And I think that in this setting, people are forced, thrown into an environment in which they have to deal with very difficult, ongoing, chronic situations that, if they're predisposed to some kind of mental health issue, it's going to make it worse. I would say that the majority of people don't have any kind of coping skills training in dealing with difficult situations when they come in here. The majority of people. They need to do that, and they need to be able to see it in the context of their life, instead of, it is their life. So I guess that's what I'm talking about is. I look at, so what are they putting in their body that makes somebody feel like this, because of that mind-body connection. And [the physicians are] looking at, oh, this person is crazy. It's not even taking into consideration the fact that they've got all these drugs in their body. I think one of the things that's very useful, that's the whole idea behind the counseling perspective, is that you're taking a normal person, who has a normal life and normal coping strategies, typically, and putting them in an abnormal situation. So, how are they going to react.

One psychologist summarized the significance of involving psychology in reproductive

## medicine,

This is not having an appendectomy, and this is not donating blood. So, the ramifications of a medical treatment on a psychological level are just so intense that I think that it's really important that the medical community recognize that they can't do what they're doing without us.

### Theoretical Orientation

Of the twelve psychologists who were interviewed for this study, five identified themselves as cognitive-behavioral, four identified themselves as theoretically integrative, and three identified themselves as psychodynamic or psychoanalyticallyoriented. Of the four psychologists who identified themselves as theoretically integrative, three felt that psychodynamic theory was more prominent in their work, and one felt that cognitive-behavioral theory was more prominent in her work. One psychologist who identified herself as cognitive-behaviorally-oriented reported having a background in psychodynamic theory, but said that her work had become more cognitive-behavioral over the course of her career.

Many participants reported that the majority of interventions they utilized within reproductive medicine work were brief, structured, and psychoeducational or skillsoriented. In the psychological assessment involved in third-party reproduction, including assessment of egg donors, gestational carriers, and recipients or intended parents, most mental health practitioners, including psychologists, rarely meet with patients for more than a few appointments. Patients may be referred to a psychologist in private practice for evaluations, or they may see an in-house psychologist at a reproductive medicine center only for the duration of their medical treatment. Consequently, many participants made arguments in favor of using more structured, short-term interventions around the stress and coping with reproductive problems. One participant explained her theoretical foundation in cognitive-behavioral therapy (CBT) as it relates to reproductive medicine, I'm CBT. It's what I was trained in. I feel like it makes the most sense and it has the most

I'm CBT. It's what I was trained in. I feel like it makes the most sense and it has the most research behind it. Most infertility patients don't have a mental illness. They have anxiety and depression because they can't have a baby. And so that's made for CBT. Infertility patients are in crisis. It's a black or white outcome. Either you have a baby, or you don't.

And you feel very isolated from people around you. [The interventions I use are] like a buffet. It's cognitive restructuring, it's a lot of different relaxation techniques. We talk about lifestyle habits. People say, "Why would you ask about seatbelts?" And I say, "Because I see it as, any behavior that you do is going to affect your health, and any thinking you do is going to affect your health." And so, it's all on the table. There's nothing people are doing that is out of the realm of discussion. So, I've found that with [reproductive medicine] patients, you can't just do cognitive restructuring, because if they're so anxious that they can't even think straight, you need to start with relaxation. So, I tell my patients I'll teach them everything I know, and they pick and choose what they like.

One psychologist who identified primarily as cognitive-behavioral discussed the

utility of incorporating Acceptance and Commitment Therapy (ACT) in her reproductive

mental health work. ACT is a behaviorally-oriented therapy that also integrates

acceptance, commitment, and mindfulness techniques in facilitating behavior change and

increasing patients' adaptive coping skills and quality of life. Contextualizing these

techniques within reproductive mental health, this psychologist explained,

My graduate school training was cognitive-behavioral. And I certainly use a lot of techniques in my work. I'd say in the past five years, I have grown more and more in my use of Acceptance and Commitment Therapy (ACT)... I had a lot of interest in it, but it took me a while to wrap my mind around the different aspects of ACT and how to translate it into the room with patients. I had found that orientation to be very, very useful in this work. [One of my questions was], How do we help people cope when they're facing prolonged infertility? They're trying lots and lots of different things, and each time, [it doesn't work]. And they're banging their head against the wall. Well, in CBT, it's a lot of how to get rid of the problem. Let's re-frame, re-structure, look at that thought. But, if you have done five IVF cycles, and you're not pregnant, and you have no frozen embryos, or you have poor embryo quality, or you're out of money, you cannot get rid of that problem. And so, Acceptance and Commitment Therapy is more about, How do I continue to live a meaningful life in the face of hardship? Whether that hardship take the form of an anxiety disorder, or depressive symptoms, or loss of faith in a higher power because I just keep trying to get pregnant to no avail. Or, my prolonged infertility, or whatever it may be. Or, the fact that I'm pregnant and I'm anxious as can be. There's a lot in this world about how patients want to get pregnant, and that makes them scared that they won't succeed. I'm in the middle of an IVF cycle, it might not work. Because I'm scared that it won't work, it won't work. I cannot be anxious for this to work. That is a totally typical thing that I see. If I cannot be anxious, then here I go being more anxious. So they're anxious about being anxious. And it happens in pregnancies. You know, I did IVF to get pregnant, now I'm scared to death that I'm going to miscarry, but I can't be scared, or I'm going to miscarry. Now I'm scared about being scared. And so, ACT has

been a fabulous framework for how you can allow yourself to have whatever you have and live a meaningful life, and still be engaged in what you love to do, and sort of get out of the struggle with it.

Another psychologist identified herself as "integrative, but CBT leaning." She discussed

finding value in using her psychodynamic background and understanding of patients'

developmental histories to inform her behavioral techniques,

I think that CBT is probably more in tune with a coping strategy kind of perspective than any other theoretical perspective. But I do look at more of, where do people come from? What was their experience? My belief is you're going to do infertility the way you did your life. The way you did your life is kind of part of your growing up, your influences of your relationships, how you dealt with life, the more psychodynamic part of your experience.

One psychologist argued for the careful integration of theories in working with

reproductive medicine patients,

Well, I'm cognitive-behavioral. I don't think that that is incompatible with a psychodynamic view. I think that there's too much tension and it really needs to be seen as habits of thought and habits of relating. And so sometimes, I'm working with one piece, and sometimes the other. Usually I'm trying to weave back and forth. I tend to be more strategic about what I'm targeting to change, instead of being global about looking for cognitive distortions or content in a particular way. I'm educating people about how it's not just the way you're thinking about this particular instance, but this is a habit, and it creates other things that you do. And I'll do that to help change habits and get new habits established, and then I'll use behavioral things in order to change actual habits and get new behaviors started. I'm flexible, but I wouldn't call myself eclectic, because it's not a mix match of everything. It's very strategic.

The three psychologists who identified themselves as primarily

psychodynamically-oriented had equally compelling rationales for why their theoretical

backgrounds were particularly conducive to reproductive mental health work. These

psychologists emphasized the importance of helping patients to explore and work through

the complex experiences, thoughts and feelings, both conscious and unconscious, that

may be brought up during the course of infertility treatments and third-party reproduction

arrangements. Participants also discussed the developmental implications of reproductive

trauma, and the importance of patients working long-term, rather than short-term, with

psychologists in sorting through these unconscious and conscious issues,

Okay. So, whenever there is a loss, previous losses come to the surface. And even if they've been looked at psychologically before, they need to be re-addressed. So, I think that's really important. And absolutely, the family dynamics are so essential. What does it mean to be a parent? What does it mean that you may not be able to? What does it mean culturally? What does it mean in terms of your own sense of self and self-esteem as a woman or man? Those are some of the things that I'm always looking at and thinking about. What does it mean in terms of your relationship and the expectation that you have? So a lot of times, I talk about the reproductive story. And it's really cool, as a theoretical model, and it's also a really good clinical tool. So, the reproductive story is something everybody has. And the story starts when we are kids ourselves, and we're looking at our parents. And we may be modeling. So it's really easy to see little girls who may have dolls. Boys do the same thing. They may have a family of trucks: they do it a little differently. Or dolls, sometimes. So, it's there, and it's usually an unconscious process that goes on and develops when people think about how many kids they want, even before they have a partner. They think about names of their children. So, these are all things that go on. This is the unconscious part of the reproductive story. A lot of times, it all may become conscious when people hit a roadblock. And all of a sudden, they realize that they had all these... Sometimes I hear people say, "I just always knew that I'd have kids. I just knew that that was part of life." And so, if we can get to that, if I can get couples to talk about what they thought it would be like, it brings the unconscious to consciousness. And then they both can share it, because then they realize that what their story is may be different from their partner's. So, their story may be that it has to be a genetically related child. Their partner's may be that it just has to be a child. So, then we can have it out. We can negotiate it. And when I tell people about the story, your story didn't go the way they thought it would, they just get it. They just go, "Yeah, that's right. Here's my story," or, "Here's my picture."

Psychodynamically-oriented participants also brought up reproductive medicine

patients' issues of identity and existential crises, which may be more difficult to address

in short-term, concrete clinical interventions. One psychologist elaborated,

A psychodynamic approach is just profoundly different, because people are going through an experience which challenges them to the very core of their being. It's an existential crisis. It makes them question everything, identify, who they are, where they're coming from, where they're going. We're talking about family continuity or discontinuity. It reaches absolutely every area of what it means to be a human being. So, my approach, when you're helping people to understand just the things I just said, and how it interacts with just very simple things... How it interacts with their past history of losses. You start talking to someone and you find out that they had some tragic loss when they were growing up, and right there, you can be extremely helpful to them. And I think that

talking in a way that has to do with meaning and how your whole sense of yourself is affected is a much more accessible way of helping people process feelings than talking about how they can change their feelings by changing their behaviors. Having said that, I'm very interactive, extremely interactive, and I'm very big into talking about behaviors. I'll ask them how they feel, but also how they use their time, let's be very specific, let's come up with strategies and see how you can put some lines around things. Let's see what you can add. So, I talk a lot about behaviors and what they're doing, and how they can add coping mechanisms. And anything I can use, I possibly can.

This psychologist, despite identifying strongly as psychodynamically-oriented, does incorporate some more structured, behaviorally-oriented interventions in her work in reproductive mental health. Overall, results showed that many participants utilized interventions across theoretical models in their reproductive medicine work; however, most participants identified one theoretical model with which they primarily identified. This way of working is consistent with the concept of assimilative integration (Messer, 1992), in which psychotherapists have a "home theory" from which they tend to conceptualize patients, but may pragmatically incorporate other theoretical techniques in their work. Although more participants identified as having a cognitive-behavioral or integrative perspective in their clinical work than a psychodynamic perspective, results showed that most psychologists were able to argue for the utility of their particular theoretical orientation as being relevant to reproductive mental health.

Participants' type of graduate training, that is, whether participants' doctoral degrees were in clinical or counseling psychology, also was relevant to explore in understanding psychologists' ways of thinking about reproductive medicine. In order to maintain participants' confidentiality, detailed information is not provided on participants' unique graduate backgrounds. In general, most participants had a doctoral degree in clinical psychology, including having studied health psychology and behavioral medicine within that training model. Theoretical orientation was distributed across

graduate training backgrounds, with counseling psychologists being no more likely than clinical psychologists to identify as working from a primarily cognitive-behavioral or psychodynamic orientation. Overall, participants who were clinical psychologists appeared to refer more often to the importance of diagnosing psychiatric disorders within reproductive medicine patients, while counseling psychologists appeared to conceptualize reproductive medicine patients as normal people who are faced with abnormal circumstances. In discussing psychologists' contributions to reproductive medicine, one clinical psychologist stated,

My impression is that [psychologists' training] is focused on being able to recognize disorders. Mental disorders. To recognize the mental health disorders that could complicate treatment, even for regular patients, to be able to treat those disorders, treat anxiety, treat depression. Treat the things that will help them get through their treatment. Or, have to postpone treatment until it's better under control. It's a doctoral level degree. We know how to treat disorders. And I think recognizing disorders is really important, particularly for donors. You see them for one hour and have to make a decision. Carriers, you meet them for an hour and a half, it's a huge, complicated task. I think it's really important to [have seen] these disorders full-blown so that you can recognize them in their more subtle forms.

A counseling psychologist compared her training experience to clinical psychologists'

training,

My background is a counseling degree. You know, as opposed to a clinical degree. Which I think is probably more suited to [the work]. [Reproductive medicine patients] are normal people dealing with abnormal situations.

Another clinical psychologist also suggested a more strengths-based approach in working

with reproductive medicine patients,

I'm certainly not presumptive; I don't study from a pathological viewpoint. People are basically healthy and do well. To me, the question is, how to work with a population that is capable, motivated, and interested, and what can I do to help support them and help them navigate these challenges.

#### Challenges and Rewards of Being a Psychologist in Reproductive Medicine

Similar to their reactions to the relationship between psychology and reproductive medicine, participants had extensive and emotional reactions when asked to identify the rewards and challenges of being a psychologist in reproductive medicine. Overall, psychologists identified the most challenging aspects of their work to be the emotionally difficult aspects of working with patients with significant trauma, relationships with other professionals, financial challenges, and ethical challenges. By far, psychologists identified the most rewarding aspects of their work to be helping people, as well as working in a stimulating interdisciplinary capacity and facilitating satisfying pregnancy outcomes for patients. Interestingly, some of the professional issues brought up as challenges also were brought up as rewards, sometimes by the same participant. For example, psychologists found working with other professionals to be challenging, but ultimately rewarding and a positive learning experience. Psychologists responded similarly when speaking about navigating the complex ethical issues that are brought up in reproductive medicine work. Additionally, helping people was reported to be a rewarding outcome of participants' work, but the journey of helping people was reported to be a significant challenge. One participant spoke about the emotional challenges of working with reproductive medicine patients,

I guess the hardest part is when people have heartbreak after heartbreak. It's just awful. And I freak myself out sometimes how much I'm able to disconnect from the emotional stuff I hear all day. Like, how do I not go home and be a basket case every day? You know, like the woman who finally decided that they were going to adopt, and then they had a financial crisis. Heartbreaking stuff like that. Or the pregnancy loss cases: the woman who lost the baby so far along. Just heartbreaking. And not being able to reassure [patients] that it's going to be fine, because you don't know. So, living with that pain with them. That's the hard part. Another psychologist reflected,

It's hard work. And you hear a lot of very, very sad stories. Which is one of the reasons that the self-care is so important. To be able to talk about some of this stuff, and process it with other people. The losses are very, very difficult. And if I'm having a hard time with it, then I can imagine what the patient's going through. So, with the example of pregnancy loss or a stillbirth, I ask them to bring in pictures. It can be really hard to look at, and what do you say?

A third psychologist emphasized the importance of effective self-care in working with

reproductive medicine patients who present as significantly distressed,

One of the things that people who don't understand infertility counseling is that they tend to pathologize these patients, because people come in in extreme states of crisis. And I think it's not unusual for people to maybe diagnose someone as being Borderline, for example. These kind of extreme fluctuations of moods and states and things... this is sort of normative distress that infertility counselors recognize and can feel comfortable working within that other people might pathologize and really think that there's something more serious going on, rather than... I tell people, it's a situation. They're dealing with a difficult situation. So, if you're not able to take care of yourself, you're really not able to take care of other people, because then you're depleted under the surface. And just all kinds of negative things happen in the treatment, so it's very important to replenish.

This psychologist continued to explore the difficulties of working with patients in

vulnerable emotional states,

Well, you're working with people who are in great need. And you're working with very, very extreme feelings. Extreme situations. So I think that's hard. That takes- because you're entering into these experience with people and they stay with you. So, that, I think, is demanding work. People are faced with really, really tragically difficult scenarios. So you're in there with them. I guess that's maybe the same thing in a way. Not necessarily. Some people are really difficult to work with. They're not difficult to work with because they're going through tragic experiences and that kind of difficulty. It's more like, they're not their best selves when they're going through it. And they're not- they don't see you as a person in the way that some people do. That can be difficult.

Working with other professionals was brought up by participants both as a

challenge and a reward, but more often as a challenge. Psychologists identified having

experienced challenging situations working with other mental health professionals as well

as physicians, nurses and other professionals within the reproductive medicine field. One

psychologist spoke about the difficulty that she feels psychologists face in being recognized by physicians and patients, as well as what aspects of the reproductive medicine environment are not as psychologically-oriented,

Well, reproductive medicine is a medical model. And, it's really unfortunate that there is this hierarchy with medical doctors, I think not, valuing the education and training of non-medical professionals. And this is something in the general public. People generally seem to think that a psychiatrist has more know-how than a psychologist... So, you've got that going on, and then the reproductive medicine takes place... I guess the ecological setting of it is so geared towards a sort of dehumanizing in a way. No matter how much the staff, personnel, the reproductive endocrinologists, are sympathetic. I was speaking to one the other day, and we were going over the schedule, and she was saying, "Well, then, on this day, I do the IVFs," and it was like one every half-hour or something. "And then, after that, I do the transfers," and there's one every fifteen minutes. And you think sometimes psychologists- you know, there has to be some understanding of how hard it must be with managed care and everything, when you're a medical doctor and you're trying to be sympathetic. And, so you've got that kind of setting, which is very different from sitting down and talking with people. And I think that there are varying degrees of [other medical professionals] being psychologically-minded. And, we think in very different ways. We have a lot of things to offer. And there is, because of modern-day life and managed care, and all sorts of other constraints, there's a big gap, I think, between what we can offer and what they can actually use. Then, when you're talking about psychologists, you know, I don't know what number of psychologists there are working in reproductive medicine, but a lot of times, it's not a psychologist, it's a social worker. And the reproductive endocrinologists and all the rest of them, most people don't know the difference between a social worker and a psychologist, or a psychologist and a clinical psychologist, which used to mean something. Or, between a Ph.D. and a Psy.D., or any of these things. And you've got other licenses. You've got marriage and family therapists and various other kinds of psychologists, [in certain states], master's level psychologists. There are so many different licenses. So, [providers] tend to get lumped together, and [people] do not really appreciate the different kinds of expertise.

Within the discussion about the integration of psychology and reproductive

medicine, challenges regarding working with other professionals were brought up. Some

participants discussed challenges of working with reproductive endocrinologists,

There needs to be so much more work integrating [psychology and reproductive medicine], and it's kind of remarkable that there isn't that much. But, there isn't. I don't know if it's changed at all. From what I hear from the people who are in the bigger practices, it doesn't seem to have changed very much. They still get a really hard time. The medical doctors turn to psychologists, it seems, when they have a big problem and they want it solved. They don't want to think about the complexities. They want to extend

the age limit [of fertility] without thinking about it. I guess if you're a researcher, you want to see how far you can go. From the little bit that I know, as a [private practitioner and] outsider in that world, they make huge amounts of money and they resist paying psychologists like decent salaries, and keeping them on board.

Another psychologist discussed the challenges of the professional hierarchies that are

often established in reproductive medicine,

I would certainly say that I think that psychologists are definitely the second tier from the physicians. And our role is so different in that we're not curing cancer per se, we're not administering drugs, we're not helping patients get pregnant from a medical or technical standpoint. And again, we're in a very traditional hierarchical setting. So, there's even hierarchy amongst the physicians. So I wouldn't go so far as to say we're second-class citizens, but I think certainly we're second-tier, in the pecking order. Which some days has its benefits. But some days it's a problem.

One participant expressed her frustrations about working with physicians in a medical

model,

The mind and the body are completely interconnected. If someone says, "Oh yeah, right, the mind and body are connected," I say, "Okay, describe how you felt the last time you watched a scary movie. Didn't you feel your heart pounding?" And I say, "That's a mind-body connection." I had a colleague who did a presentation and he showed the physicians all the data showing the adverse impact of psychological distress on IVF outcome. The senior physicians said, "You can show us data all day and I'm still not going to change my mind. There's no way that anything other than drugs or surgery affects fertility." And probably once a week, something happens, and it bugs the heck out of me, and I say, "You know what? I'm doing good work. The patients really like what we're doing. There are people outside here who respect me." But it's still hard. I've been swimming upstream my whole career.

Psychologists also discussed the challenges of working with other mental health

professionals in terms of the competition within the field. One participant responded,

Well, psychologists are trained to do research. We are trained to do testing. And in this field, the testing of donors and surrogates is really crucial. And that does differentiate the psychologists from the social workers. I happen not to do testing. But I know that at ASRM, that really does differentiate the two. And there seems to be a huge amount of competitiveness. Between those two professions, I think that any time you have a Ph.D. competing with a master's level person, you're going to get competition. I think that both groups are perfectly adequately trained to do therapy. But research and testing really are the purview of the Ph.D.s. Those are those extra years. If you look right now, the money-making part of being in reproductive medicine is the testing. It's the egg donor and carrier

evaluations, which bring in the big bucks, because that's cash. Any time you do a cashbased business, you're going to make a lot more money. And these evaluations are outside of insurance. Some of them are international, even. So, the third-party stuff is interesting. And I'm sure there's competition between the social workers and the psychologists, because anybody can do the meeting. Only the psychologist should be doing the testing. And that's probably 90% of what mental health professionals in our field are doing right now. The third-party stuff.

Another psychologist spoke about competition between mental health providers,

I think there tends to be a hierarchy, and it's easy to get... I try very hard to be respectful of my colleagues. There's also a way that professionals can be very off-putting. It's a very competitive field. Highly competitive.

One psychologist spoke about the competition she feels in collaborating with nurses, who

may spend the most time working with reproductive medicine patients as compared to

physicians and mental health providers,

I find that another challenging thing about nurses is, they seem to want to do mental health. They want to be the psychologist. But I think in terms of nursing in general, it's not as if- you'll see the gravitation into the mental health training. It's more, they stay where they are, they do what they do, but yet they try to do other things. So, you get a nurse doing very superficial kinds of counseling. Where I see it is in terms of the third party reproduction. They kind of say how things should be with respect to disclosure, how people feel, there are aspects of grieving. And what they do is they kind of... it puts me in a position of not knowing what [patients] are really thinking, because they're given information as to what should be. So then they come into me, and I'm trying to get an idea of where they are, and I don't know whether or not it has to do with what they've just heard from the nurse. The other part is in terms of assessing donors. They kind of look at a donor and make a decision, "Oh, she's okay." But they don't see things that are related to more anxiety, depression, deception, and those kinds of stuff. Very general, but, an overstepping of bounds that I find very challenging.

For this psychologist, other reproductive medicine providers may at times threaten what

her unique role is for patients. For her, that is particularly challenging. Another

psychologist spoke about the issue of how psychologists with expertise in reproductive

medicine may distinguish themselves and find credibility among psychologists with

general experience in reproductive medicine,

It's very annoying, because there are so many people who say that they're an expert in infertility. People will give me a name, and I'll say, "You know, it's a very small area. Everybody knows everybody. And I never heard of that person, so I can't say what they are or are not, but I can tell you I haven't heard of them."

One psychologist in private practice spoke about the challenges of not being affiliated

with a hospital or university in terms of clinical referrals and research interests,

I struggle for a place in the market. It's enormously, enormously difficult. To not be part of an institution.

Several psychologists also spoke about the financial challenges involved in being

a reproductive medicine psychologist. One participant referred to financial challenges in

the context of professional competition,

Definitely financial challenges. This is not the field to go into if you want to have total financial security. I mean, there's a lot of competition, actually, in the whole infertility world, which is really weird because there are so many people going through this treatment.

Another psychologist in private practice stated, simply,

I think that's true for everybody, so I don't take that individually. I just think it's a challenge to make a living these days.

Another psychologist spoke about the pressure she feels to the larger society, including

other reproductive medicine professionals, to facilitate the change of attitudes, norms,

and language around reproductive medicine,

The area of alternative family building is sadly lacking in terms of theorizing. In terms of, it's a common thing, "Who's the 'real mother' or the 'real father."" To use these kinds of terms. And it's not just language, it's how people think. So, I think that is very distressing, because I think that mental health professionals have a responsibility to society to help people really think in ways that... theories are supposed to explain all behavior. And theories are really behind in terms of being inclusive. You know, of all the different kinds of families. So that, I think, is the most challenging thing: talking to other professionals. Because, you know, you could easily get angry, and that's not very helpful. So, how we interact with the larger society. I think that people who work in this area have a big responsibility to try and be bridges, to try and interact in a way, be role models for the very things that I try and help the people going through this to do also... to allow for the person not knowing what they're talking about and find a way of being an advocate.

Interact with them and not judge them, but also allow there to be room for another point of view. So, I think that's the most challenging thing, really.

Ethical challenges also were brought up by several psychologists as a

considerable challenge in reproductive mental health. Indeed, psychologists in this field

are part of a network of people that facilitates the creation of life through a variety of

types of technology and assistance from third-party individuals, including gamete donors

and gestational carriers. One psychologist stated her concerns,

Sometimes, over the years, I've seen things there that have raised red flags in my mind about the ethical duplicity that seems to characterize the work of many mental health professionals in the field. [There's a] veneer of ethical purity, but what they're really doing is selling sperm and eggs and arranging for them be mixed up to make kids for people who have the money to be able to afford it. And the line between treatment of fertility illness and a vanity project for the narcissistically entitled and wealthy is a line that many people aren't willing to consider exists. And a little creepy. Because this is a big money business. And if research comes out that shows that harm is being done to egg donors, how are people going to feel? And I'm not so sure that that research isn't going to be mentioned in my lifetime.

Another psychologist expressed the challenge involved in screening individuals for third-

party reproduction,

I think that the challenge is to realize that... I don't like being the gatekeeper, for the most part. I don't think I'm that smart that I'm able to predict what people are going to be like twenty years down the line or what the issues are going to be. So, I think that the ethics is... Just trying to understand the ethics is a constantly moving target with this. I always say that I'm not young enough to know everything!

Another participant who works in collaboration with a reproductive medicine center

spoke about other unique ethical challenges that are brought up in reproductive medicine

and increase as technological advances increase,

There are a lot of unique ethical challenges, and they just continue. The field continues to evolve and new things become possible. And the questions are, should they be possible? I guess a lot of the things that are super controversial, like the use of a gestational carrier for non-medical reasons. Like say, for cosmetic reasons. And we don't do that. We don't do Pre-Implantation Genetic Diagnosis if you want a blonde, blue-eyed girl. We do it if you have Huntington's Disease. So, I think a lot of those things make it easier, I mean, if I

were working with a team of reproductive endocrinologists who were saying they were really comfortable with those things, and my value system was in conflict with that, then that would make a big difference in what my duration of employment was. So, I think that's one of the challenges, but it's also one of the rewards. Because when you think clearly about ethical issues, and when you help the team to do so, I think it improves the practice.

One psychologist in private practice spoke about the pressures she feels to do what is

ethical, do what is best for patients, and be thoughtful at the same time,

Just really wanting to do a good job. Wanting to help each person as much as you can. You know, and hoping that you're getting it right, that you're giving them what they need. The challenges of just doing a good job... no matter how many colleagues or other things you have, you're isolated. That you're not drifting from the ideal of what you should be offering, that you're not drifting into doing something that's bad technique, or you want to have your personal style, but you don't want to just be winging it. Like you want to do basic theory, and basic good technique. And you know, working on your own by yourself day to day, you wonder if you're still doing what you're supposed to be doing with them. I think that's the biggest challenge. Just trying to do it right.

Less common themes that were brought up in the discussion of professional challenges

were helping patients who may be hard to help, feeling isolated in private practice,

finding time for self-care and work-life balance, and how to continue to be creative and

innovative in a rapidly changing professional field.

Psychologists also had strong opinions when speaking about the rewards involved in the reproductive mental health profession. Helping people was, overall, the most common theme identified by participants. Interestingly, helping people was not always described as helping patients to have a baby; rather, participants identified various ways of helping people as being rewarding. Examples identified were helping a patient cope with an unsuccessful fertility outcome, helping patients make good choices for them, helping patients get out of crisis and feel "unstuck," helping patients re-connect with their partners and family members, and helping patients explore other ways of having children, including third-party reproduction or adoption. One psychologist explained, I think probably the most rewarding part of this work is to, and this may sound very weird, but when someone has a failed cycle, and they can cope with it. And they hadn't done it before. Or, when they can make a decision to move onto adoption and be okay with it. And just kind of get to the point of being able to accept a new deck of cards that they're dealt. I find that pretty rewarding.

On helping people even if a successful fertility outcome is not achieved, one participant stated,

I think probably the most rewarding thing is feeling like I can actually help people make good choices about very hard life decisions.

Another participant discussed the reward found in helping patients to move out of crisis

and rekindle meaningful relationships,

The top is helping people move. Helping people get unstuck. People are stuck. They get stuck, they spend years. I've met people who have spent ten or twelve years going through all this stuff. And life is passing them by. Time is limited. So, the top one would be helping them move. The second would be, sort of related, helping which path is best for them. And the third is helping people re-connect. And when I say move and find the path that's right for them, I don't necessarily mean a path that involves children, although mostly it does. I have worked with people who have moved towards the child-free. But that's been much less. Usually it's which path to having a child, or helping them hang in there. And the third is just helping them re-connect. Helping couples re-connect with each other, and with the rest of the world, because they feel so painfully different and isolated, and alone. There are sisters who don't talk to sisters... The thing is, as they go through the experience, not only do they feel so alone and misunderstood, profoundly misunderstood, but they actually end up profoundly misunderstanding other people, too. Because of various things- because they're depleted, because they're in crisis, because they don't have any resources left. Because they're experiencing such painful alienation. There are all sorts of reasons why they end up not having the empathy for other people who are going through other kinds of crises that they can't even see.

Another psychologist also described the reward in helping people to move forward with

their lives,

I think of it [as] helping people feel more comfortable within their own skin about this. More capable of seeing that they have choices in making decisions. And feeling that there's comfort and hope.

Participants also identified working with other professionals, including in an

interdisciplinary capacity, as being very rewarding and stimulating. One psychologist

spoke about her unique role in the field of reproductive medicine among physicians,

nurses and lawyers,

I feel like I'm offering something unique. That I'm helping people in a way that they wouldn't get except for me. There are other good therapists, but whatever flavor I offer is unique to me, that I'm giving, and I like that. I like offering something unique because it's something special to them. And I really like working as a part of the medical team. I like the stimulation of learning about the new medicines, the new procedures, and it's so stimulating. Being part of that work. I'm so glad that I have the affiliation. I have a medical library, I have things to observe. I have people. It's great being part of, interacting. And I think also just the uniqueness of this field. That it's the cutting edge.

Another psychologist spoke about the reward in providing a unique service and way of

thinking about reproductive medicine,

I think it's stimulating that everybody doesn't think the way I do. It'd be easier if everybody did, but I don't think it'd be terribly interesting.

One participant spoke about her positive experience working in an interdisciplinary way,

I think the most rewarding is that the work in this field is always changing and always challenging, and I find that exciting. It's multi-disciplinary. To be a psychologist and get to work with MDs and lawyers, and ethicists. I feel like I've had the opportunity to blaze a trail, if you will, in some areas. Either by working as part of a committee or doing research. And to think, "Oh, this helps everybody!"

A psychologist in private practice discussed a stimulating and rewarding experience of

participating in a peer supervision group, including psychiatrists and psychologists,

around issues related to reproductive medicine,

It's been really, really great. I find that it's been extremely supportive. Being able to discuss cases, share ideas, know when you get stuck that you have someone to call. It's been very helpful. And certainly having a psychiatric referral, a lot of people are referred for meds. The psychiatrists that I work with do some therapy, but mostly medication management. And so it's a really good arrangement.

A few participants also identified sharing in successful fertility outcomes as being

very rewarding in professional work. Although not directly responsible for patients'

medical outcomes, participants felt that they had played a role in patients' experiences of

fertility treatments, and thus found it a meaningful experience when patients successfully

had children. One participant shared,

I have to confess that the most rewarding thing is when somebody gets pregnant and has a baby and comes in and I get to hold the baby. It's a joy.

Another psychologist expressed a similar reaction to patients' positive fertility outcomes,

I guess, happy outcomes with patients would be one [rewarding aspect of my work]. Satisfying outcomes for them certainly brings that satisfaction for me.

One participant spoke further about the rewards of working in reproductive medicine,

despite the emotional challenges,

Well, I think that it's an extraordinarily rewarding field. You don't see patients for five years and then they smile. The patients that I see get better really quickly. And they are very grateful. I definitely know how much the patients appreciate what we do. And I've had a lot of people I love go through infertility. And it's brutal. So, anything that we can do to make that journey a little easier. And to keep them in treatment. And to hold their hand, and talk to them through one more cycle. And they get pregnant, and it's amazing. And they have babies.

Other rewarding factors of work in reproductive medicine identified were participating in

cutting-edge medical work, being acknowledged by colleagues in the field through

research and presentations, feeling valued at work, and helping a greater number of

patients through research. One participant, who is in private practice and sees a variety of

patients for psychotherapy, commented on the richness brought into her work as a result

of including reproductive mental health in her practice. She shared,

The most rewarding aspect is how varied my work actually is. I get to work with patients in a wide variety of spheres of life. So, somebody might be coming to me who is a hightech entrepreneur, and somebody else is within reproductive medicine. Somebody else is just your technical, smart, unhappy person who's been through a bunch of therapy and needs to talk to somebody. Somebody else will be a struggling college student. So, being able to have such a varied experience of what's going on the world and what life is like today, I find to be extraordinarily rewarding.

### Psychologists' Unique Roles in Reproductive Medicine

A primary goal of this research was to gain a more nuanced understanding of clinical psychologists' unique roles in reproductive medicine. In particular, the researcher deemed it important to understand these unique roles specifically from psychologists' perspectives. Once psychologist participants had spoken more generally about their daily work, they were asked to think about exactly what they felt psychologists "brought to the table," in the field of reproductive medicine. Psychologists were asked how their training as a psychologist, specifically, influenced their work in reproductive medicine. While earlier sections of the semi-structured interview had focused on psychologists' daily activities and what the experience of being a psychologist in reproductive medicine is like, this section focused on what other people, including professionals, families, and the public, should know about psychologists' contributions to reproductive medicine.

Several major themes emerged in this part of the interview. First, psychologists identified the ability to conduct and interpret psychological tests, primarily psychometric instruments used to assess personality, as a unique skill that psychologists bring to reproductive medicine. Within the mental health field, only psychologists receive training in psychological testing. Thus, psychologists are in a unique position to contribute to areas of need in reproductive medicine, specifically, the psychological testing of third-party reproduction candidates, including egg donors and gestational carriers, prior to medical interventions taking place. Participants also identified the depth and breadth of psychologists' training, including research training, critical thinking skills, scholarship, and writing, as unique talents brought to reproductive medicine. Some participants

55

discussed the prestige of the doctoral degree as being advantageous to the field of reproductive medicine.

A more minor theme identified within the conversation of psychologists' unique roles was the utility of psychologists' expertise in working with emotionally and ethically complicated issues, which often are brought up in reproductive medicine. Psychologists also described themselves as experts in providing emotional support to reproductive medicine patients and staff in times of significant stress. Other themes identified were psychologists' prestige and level of training among mental health practitioners and psychologists' ability to diagnose psychiatric illnesses, including more severe mood disorders and psychosis, which could interfere with reproductive medicine interventions.

Psychological testing was brought up by several participants as a critical skill brought to reproductive medicine. One participant commented on psychologists' roles in administering psychological tests, training other professionals to administer them, and analyzing test results,

The testing is obviously something unique that we can offer, besides social work and medicine. It's the only thing we really can do that nobody else can do. It is legitimate to have a research assistant, even a college student, administer a psychological test. It's just a technical task. With psychologists, what's unique is being able to train the people to administer it, and then interpreting the test. Anybody can administer as long as they're trained by you. And that's right in the instructions of almost any test. I mean, you have college students that can do quite complicated administration of tests for research for us. So, that's easy. But being able to interpret the testing.

Another participant had a similar experience with psychological testing being a unique professional skill,

I think we come into the setting already with some knowledge of psych testing and psychometrics. I think that's one of the things that sets us apart.

One psychologist compared psychologists' psychological testing skills to skills that other professionals bring to the reproductive medicine table, and also alluded to some of the professional competition that goes on within the field,

I had good training in that I was trained to do testing and understand the psychometrics behind testing, so it's not just turning out widgets. I mean, when I look at testing, I do feel like I have a huge advantage over [another type of professional], who really doesn't understand when we're talking about what two standard deviations above the mean really means. Or, how test development works and really, so, it's probably territorialism on my part, too.

The depth and breadth of psychologists' doctoral training, including intensive

training in theoretical foundations of psychology and research, critical thinking skills,

scholarship, and writing, was an important theme brought up in the discussion of

psychologists' unique roles in reproductive medicine. Many participants discussed

psychologists' expertise in working with emotionally and ethically complicated issues,

which is a key skill in working within the reproductive medicine field. One participant

reflected on psychologists' comprehensive training,

I think a psychologist's training means that that person has spent a significant amount of time studying multiple areas about what it means to be human. Whatever their training, whatever kinds of things they've studied, there is a kind of a common ground to being a psychologist about... My training, I'd say the thing that I got from my particular program, was how to think critically. How to critically evaluate theory, how to critically evaluate research. By definition, that means being able to reflect, being able to think at a meta-level. Not just to think about theory, but meta-theory. To really examine what is going on and really take a step back and look at that in a much more complex way. And then, presumably, if they have any kind of clinical background [psychologists have] had a lot of supervision, and they've had experiences which often, not always, include some kind of work in inpatient [psychology]. And working with, perhaps, more profound psychopathology, which is always an advantage, and that always helps you with your clinical expertise. But I'd say deeper, more thorough, longer, exposure to more theories... A psychologist is going to be able to think more scientifically. And a psychologist will not take things at face value.

Another clinical psychologist commented on how she feels psychologists' diagnostic

skills are different from other mental health providers' and also alluded to the prestige of

the doctoral degree. Other participants discussed the advantage of the doctoral degree in

terms of respect and prestige among colleagues. One participant commented on the

advantage of having a doctoral degree when working with reproductive endocrinologists,

And I think, also, you know what, just having a doctoral level degree. I think when you're working with MDs, it's huge. I think the amount of respect that you command, I think the amount of credence that your opinions are given. I think from the get-go, you're just starting on a different plane with people when you have a doctoral level degree. I hope so! It's very different when you walk in and say, "Hi, my name is Dr. so-and-so."

Another participant discussed psychologists' experience in psychological testing, but also

discussed the prestige of the doctoral degree in incorporating mental health professionals

into medical settings,

I think we come into the setting already with some knowledge of psych testing and psychometrics. I think that's one of the things that sets us apart. I'll be honest, I think that, being a psychologist, I'd probably say there's a bit more status, if we're back to thinking hierarchically.

In reflecting on psychologists' comprehensive training and how that is clinically

useful in reproductive medicine, one participant discussed her comprehensive

professional work with couples and families,

Basically, we can get the emotional piece. We can get the ethical piece. We can talk about the long-range implications of what people are doing. I guess I feel that the educational piece is probably the biggest part of it. The ethical things. We're well-suited because of our communication skills and our counseling skills to bring up the hard questions and make couples think and talk to each other about what they're doing and how they feel.

Another participant identified critical thinking skills in discussing psychologists' unique

roles in reproductive medicine,

I do think that it's really important not to just treat the surface. So, there are always questions that people come in with. They're trying to figure themselves out... My orientation is such that I'm always questioning the questions.

A few participants identified writing and scholarship as being unique skills to

psychologists. Discussing the importance of psychologists' scholarship in light of

professional and economic competition, one participant commented,

Publications. That's what I see as psychology's niche. If we lose that scientistpractitioner balance, we're toast in the marketplace.

Participants also discussed the scientist-practitioner and practitioner-scholar roles that

psychologists bring to reproductive medicine. One participant framed psychologists as

forming a bridge between psychology and reproductive medicine,

Psychologists can be the bridge between the hard science and the touchy-feely. We're the ones who can actually, in a reproductive medicine context, bring data. I think the unique thing that none of the others have is being able to bridge the 2 worlds of the scientific research and the subjective experience. I think [technology is] getting ahead of what we can experience, what we can engage, how our relationships and our social practices are able to contain them. So, I think there's a whole range of psychological domains that are being pushed into new areas by technology. And what [psychologists] can bring is an awareness of that change and a way of holding on to those experiences and relationships and values that we want to maintain as we're moving forward.

Discussing the emotionally complex issues facing families with children conceived from

donated gametes, one participant commented,

A psychologist can go a long way in helping people think about their reactions to things that they may not be completely aware of. To imagine what it might be like to be a child in the future. How this is part of your life history, and what it might feel like to grapple with it, since the parent, for example, may never have had to deal with something as complicated. To think, to put yourself in somebody else's shoes, to imagine what it would be like to be the child, the donor. To allow oneself to have multiple experiences. To question vocabulary that's used. To question assumptions we make about families. To inquire about it.

Participants identified themselves as being able to provide expert emotional support, both

to reproductive medicine patients and staff. One psychologist stated firmly,

I guess I would always say that the psychologist shouldn't be afraid to sort of stand up and know what it is that they bring to the table. They shouldn't apologize for the fact that their inclusion means the process is going to take a little bit longer, or be more expensive. Because we radically impact thinking. On the part of our co-workers, on the part of our patients. We bring something to the table that no one else brings. And really, we have a lot to say about these issues. I've worked with a lot of different health populations, and working in reproductive medicine, it is by far the most emotional and the most ethically complex health problem that I've worked with. And so, psychologists are front and center for that reason.

#### What Professionals and Patients Should Know about Psychologists' Roles

Another important consideration in this research was what psychologists feel professionals and patients should know about their roles and experiences working in reproductive medicine. Psychologists were encouraged to view their contributions to reproductive medicine from the perspectives of these other individuals involved in the field. Responses to this section of the semi-structured interview overlapped somewhat with the aforementioned topic, but were distinct in considering psychologists' roles from other perspectives, rather than participants' perspectives. In light of the literature on professional competition and systemic obstacles within the healthcare system, psychologists also were asked how they might feel best supported in their roles.

Major themes identified in this section included the idea that psychologists can provide expert, comprehensive support for patients, that emotional support through infertility and other reproductive interventions is critical, and also that psychologists are available to patients for the long-term, not only throughout fertility interventions. A few participants highlighted the comprehensive nature of psychologists' roles in reproductive medicine patients' lives. One participant explained how varied her roles are in helping reproductive medicine patients,

What I try to get across to the doctors and families is that what I have to offer is full service and flexible. Because I can do individual, I can do group, I can do couple, I can do family, I can do testing. I can do client counseling, being supportive, but yet I can treat your needle phobia so you can get your IVF cycle on track. So I try to offer, kind of whatever you need. If you want me to give lectures, talk to patients, have an in-service, I can do anything that you need of me and I definitely try to get that across to the patients

as well. "Tell me about your services?" "Tell me what you need!" And I think the fact that I understand this particular field. This is pretty much all that I do and all that I've done for the last 12 years. And it's so important to refer to someone that you don't have to tell them what PGD stands for. And what does ICSI stand for? They come in and say, "Yeah, I'm Fragile X." And I know what that entails. And they say, "Okay, well, I have this kind of clotting disorder, and I know what that is," and I know how it affects their treatment. Not that I'm going to explain medical things, because it's not my role. But it certainly saves time. And if I have a Turner's patient coming in for donor egg, they're so grateful that I understand how Turner's affects fertility. And they're grateful to meet someone who has seen someone else with Turner's. It's really helpful to know that I have expertise in this particular field. I can help them put a barometer on how much are they really okay. Like, they hate pregnant people all the time. They feel nasty because they're jealous or this or that, and aren't they a horrible person. And I say, "Look. 95% of people that I see feel that way. I have to think that it's the situation and not the person. Because if everyone's reacting the same way, it can't be you!" And that's such a relief for people. Again, the flexible and full-service, but the unique expertise in this area is really, really important. Those are the main things.

Another participant highlighted psychologists' training in systems theories, and explained

how that helps patients to navigate the complex medical world of reproductive medicine,

I think it's very important to think in a systems perspective. Especially in a setting where you have a team approach. Where there are physicians, nurses, mental health. Especially when you're dealing with relationships, and you're dealing with patient relationships. And outcomes, and those kinds of things. I do personally think that psychologists tend to be trained to be able to look deeper, a little broader.

Another participant focused not only on how to advocate for patients at the individual

level, but also at a more comprehensive, systemic level. She also discussed the need to

continue to advocate for the integration of mental health into reproductive medicine,

I think we just continue to educate patients about what we do, and I think we continue, on a broader level, to lobby for good reimbursement. I think that's one thing we can do for our patients, which is probably the reason I pay my APA dues, because that's what they do. So, I think the challenge is to constantly be creative and innovative in terms of how do we deliver services and not just get stuck in a rut with the way we've always done things, and realize the world's changing, and change with it.

Many participants identified psychologists' ability to provide expert emotional

support to patients in reproductive medicine as a critical part of patients' treatment

experience. One participant spoke about the sometimes complicated relationships

between reproductive medicine patients and psychologists, whose advice may differ from

patients' fantasies,

Psychological suffering is real, inevitable, and unnecessary. You can't muck about with this stuff without expecting people to emotionally reel from it for the rest of their lives. It's a life-changing experience. And psychologists can help understand and explore that. What should they know about psychologists? Patients are such a diverse group. If I could implant a message, it would be that we really do have their best interests in mind. So, even when we don't agree with a decision, we're not doing it because we're mean.

Another participant discussed the crucial role psychologists play in supporting

reproductive medicine patients through complicated, exhausting interventions, whether

they are successful or not,

Psychologists can help open these feelings up and find a way of understanding it, and understanding the experience so that it's not quite so painful. It is something that you can tolerate or understand. A psychologist can help people sort through their feelings and what they're really trying to do so that they open it up a bit and really can consider different options. I think it's an edge in this field to pull people along until they hit their absolute last moment. I think you need to emphasize to doctors that creating a family, particularly with donor gametes, and some people think even with IVF- you're asking somebody to do... To create life and create a family in a way that is different from what we grow up thinking is going to happen. And that requires some kind of an adjustment. And a psychologist can help somebody make that adjustment... better. Whether it's shorter time, or more completely, or more fully, or with more questions in their mind that they are then prepared to continue to ask themselves. You know, it's not over just because it all works.

Participants also discussed the longitudinal role that psychologists may play in

reproductive patients' lives and futures, beyond medical interventions such as fertility

treatments or involvement with third-party reproduction. Explaining the utility of

longitudinal emotional support, one participant who works with recipients of donor eggs

shared,

I think it would be important that they understand that through this process, their emotional health can be just as important as the treatment process itself. And that I think our role carries on. As an example, I just got an amazing e-mail from this woman, who asked, "Could you please tell me about Donor number..." I don't know. She said, "We understand that the donor was Jewish, but my son is getting ready for his Bar Mitzvah, and we need to be absolutely sure that the donor's mother or grandmother was Jewish. Because my son now is asking me if he's really Jewish." I mean it's like, suddenly we're involved in these people's very personal lives. He'd been told not really a long time ago that he was conceived through a donor egg, but it's now a question that's come up for him as he's preparing for his Bar Mitzvah. Can you believe it? That carries far beyond a positive pregnancy test. We can still be involved in these people's lives well beyond the time they leave here, and we are. Which is not what the doctors are. You know. I mean, I have people who call me and say, "I don't know if you remember me or not, but we're just sitting down with our daughter, and we wanted to talk about XYZ." And I mean, so... I think that's what I'd want them to know. An acknowledgement of the importance of their emotional lives in this whole process, as well as the fact that we would be available well beyond walking out this door.

Psychologist participants considered their contributions to reproductive medicine to be multi-faceted. Psychologists' critical thinking skills, stemming from comprehensive doctoral training in research, theory, and practice, appeared to be uniquely geared to supporting patients through emotionally difficult processes. Another psychologist stressed the importance of psychologists' involvement in patients' lives beyond reproductive medicine treatments,

One of the things that I'd want families to know is that we're always there. Meaning that, from conception, post-delivery we're still there. They should contact us when they're having issues of, wow, this is really my kid, but I don't really feel attached because it's not genetically mine. Whatever might come up, I would hope that families would recognize that we'd be there long-term, available for them. The long-range is probably the most important thing, and the skills that psychologists have can serve them in many ways. That's the number one thing. In terms of the reproductive stuff, we're available to help them through the tough questions. We can't always give an answer, but we can help them think.

Participants also were asked how they might feel more supported in their roles in reproductive medicine. Many participants identified feeling well supported by colleagues, both psychologists and other professionals. The participants who identified needing more support cited financial concerns and the need for additional peer supervision from other psychologists working in reproductive medicine. A few participants identified the wish for increased recognition from physicians. Most participants identified their work as very interesting and stimulating. One participant spoke about her effort in cultivating a

supportive community of mental health professionals in reproductive medicine,

I guess I feel quite a lot of support already, because I've sought out people and have relationships with people who work in the same area, and whose work I find very interesting. And I feel respect, mutual respect. So, I feel like I feel a lot of support.

Another participant spoke about the benefits of utilizing peer supervision in managing

one's own emotional reactions to professional work, as well as seeking consultation on

professional issues,

I think that's really an important thing, to understand oneself and be able to monitor one's own feelings is critical. I have a group here. We're a group of psychologists and psychiatrists and we meet once a month. And not only do we share about cases, a lot of them are mutual- psychiatrists also see patients that I'm seeing or that other psychologists are seeing. But we also just talk about our families. And that is really helpful. And we've been doing that now for five or six years. It's really been wonderful. I think, if anything, that I would want to be able to meet with this group more than once a month, just because I like everybody so much. But nobody has time, and neither do I. The other thing I've been doing, which is really cool, is an educational group. It's a small group, I don't even know how I landed in it. But the word went out, and I said, sure, I'm going to be part of it. And that is also once a month. And sometimes it's just sort of an open talk about stuff in the field. And sometimes I've presented, other people have presented on different topics. So that's been really, really great, too.

One psychologist who works within a reproductive medicine center reporting feeling well

supported in her role and explained,

I honestly don't know about being better supported. I could see ways of being further integrated, but some of those would require a commitment on my part that I am not yet willing to make. I would say that I don't know if it's a question about support as much as it would be integration. I'm embedded in this practice, but I am not standing with them side by side passing tubes during a retrieval. So, the nurses and the physicians, and PAs, and nurse practitioners, they all kind of work more in conjunction with each other, and I'm a little bit of an island. So, there's constant overlap, interface, we eat lunch together, we talk in the hall about cases. And presenting at team meetings. But I think it would be more a question of how to better be integrated than how to be better supported, because I really feel very, very lucky.

Some participants cited the wish for increased financial support in their work,

including clinical work, research, and conference participation. One psychologist in

private practice, who felt well supported overall, commented,

I wish there was [sic] more funding for more meetings, and it wasn't all an economic challenge out of pocket, but I think I don't really have an answer for [that question] because I feel pretty well supported. And I think that's true for everybody, so I don't take that individually. I just think it's a challenge to make a living these days. And get funding.

Another psychologist in private practice, who also has an interest in research and writing,

identified problems with limited access to academic libraries, as well as frustration with

insurance reimbursement,

I feel like I'm hanging out here in the breeze and have to wheel myself. Even doing research, or my book, has become increasingly difficult. In fact, I started a couple years ago, Saturdays and Sundays at the library, pulling articles because I couldn't get remote access to a university library. They wouldn't extend me an adjunct status or anything that would allow me to have access, so I had to physically go there, to the med school library. They're making it increasingly difficult for people from the community to come in and use their facility and journals. And here the thing with the whole politics is that that means fewer and fewer independent scholars are going to be doing work that essentially balances or levels or speaks anything sensible into the narrative. I have to pay \$300 or \$3,000 to get access to the articles that I need to pull together to write something. I think the patients really need to understand different levels of training. And I think one of the best things to ever happen, and it won't, would be for insurance to actually translate it. It's about the same co-pay for anybody that they go to. But if insurance can recognize different levels of training, that would be helpful.

One psychologist who works closely with physicians cited the wish for additional

financial support, as well as increased professional recognition,

A lot more money! Yeah. That probably would be the biggest. And again, it certainly would be nice if I were just to sort of fantasize, to have the physicians more willing to acknowledge our importance. I kind of feel it, and I can tell that they depend on us in many ways. But to have it actually acknowledged would feel really good.

Another participant who works with physicians shared her wish for increased respect and

recognition,

The physicians would actually say with every new patient, "We want you to know about these services. These are the ones I recommend. I encourage you to go talk to them." That's all I ask. It never happens.

One psychologist in private practice identified the wish for additional peer supervision

and the creation of additional credentials specific to psychologists working in

## reproductive medicine,

I will definitely say that the MHPG listserv is helpful. I would love... I always kind of struggle with the fact that I trained myself to do this. I really feel like I know a lot; I always think I go by the book ethically, but if there could be a training program or a certification that I could have. Like, I have a credential, I really know what I'm doing. So, I haven't gotten supervision on this. I did say to myself, "Yeah, you know how to do this. You know how to do that." And I actually don't feel like I always need supervision, but once in a while. Again, I've been doing this for ten years, and I've been talking and I guess do know a lot of stuff. But I still consider myself junior in the field. So, I'd want to feel like I... I'd like to have a credential, I guess. That I knew I was doing things the right way, that I was getting all the latest information. I subscribe to *Fertility and Sterility* and I skim through, but it's not always enough. When I bought the fertility handbook, that was great.

#### The Experience of Participating in this Study

Finally, participants were asked to describe, as honestly as possible, what the process of participating in this study had been like for them. Overall, participants were very pleased to have participated in the study. Many participants found the semi-structured interview a unique venue in which they could discuss their professional experiences, both positive and negative, and reflect on their careers. Several participants commented on the small size of the community of mental health providers working within reproductive medicine and noted that it is not always possible to be fully honest about opinions among colleagues. Moreover, the importance of patients' confidentiality was of utmost importance to participants, and participants were used to having to keep much of their professional work private. Consequently, several participants seemed to

find the opportunity to be fully honest relieving and useful. Many of the participants were curious to learn about other psychologists' experiences and asked when the study results would be available.

A few participants identified the experience of interviewing to be an "outlet" or

opportunity to "vent." One participant in private practice shared honestly,

Oh, it was great! Look, I mean, it's not that I have so much free time, and I did think like, "Okay, do I want to spend one of my mornings doing this instead of doing whatever, errands?" But, I was a grad student. I needed subjects! But also, I don't have that much opportunity to talk about this. It's nice to talk about it. It's nice to have an outlet, just from my own experience, because no one asks me... You know, I talk to my husband, and I guess at ASRM we all kind of do that for each other a little bit. But it's nice to be able to do all the talking, when usually you're the one doing the listening. I don't go to therapy, you know! Like, it's great just to be able to talk. So, that was good for me. I mean, I have people that I call with questions, a couple people, but nothing regular, and you know what, I don't want to put something else regular in my schedule. Maybe someday. But even then, you sort of have to give and take, it's a group. But this, you were able to ask me questions. I could just talk.

A psychologist working within a reproductive medicine center responded,

It is a time to get a lot of things off- to say something about- I don't think this is an easy field. I think it's very rewarding. And I think it's- I'm very lucky in terms of being able to have a group of colleagues. We've been meeting for about eight years, four to five times a year. And this is a lot of what we talk about, is [sic] the difficulties in terms of this field. But we can't always be extremely honest... there. So, this has not been torture!

A psychologist in private practice shared a similar opinion about having the opportunity

to speak openly,

It's been interesting to talk about it because I don't get to talk about it much with anybody other than ASRM. So, that's been interesting! I've enjoyed talking to you about it. It's been kind of fun to think about what I do. It's my pleasure.

#### CHAPTER IV

## DISCUSSION

This chapter reviews the themes that emerged within the interviews with the twelve psychologist participants. Themes are discussed as they relate to the current literature on psychologists' roles in reproductive medicine. Topics explored in the present study include the nature of psychologists' everyday roles in reproductive medicine, psychologists' experiences of these roles, and how others may understand psychologists' unique contributions. The challenges and rewards of working in reproductive medicine, as well as how psychologists' training impacts their roles, are emphasized. Also examined in this chapter are limitations of the present study, implications for future research, and the experience of the researcher as a participant observer. Of note, this study was designed as an exploratory study, and results should not be generalized to the larger population of psychologists working in reproductive medicine. It was expected that participants' experiences and roles would vary, and the semi-structured interview aimed to capture these individual experiences.

## Professional Activities and Roles

A primary goal of this study was to gain a specific understanding of reproductive medicine psychologists' professional activities on a daily basis. Most of the psychologists who participated in this study (75%) worked in private practices, with the remainder of participants working within reproductive medicine centers. Although many of the private practice clinicians reported consulting to medical practices, the majority of the

psychologists interviewed for this study were not embedded into reproductive medicine clinics. This finding is notable, given the aforementioned literature on the growing intersection between psychology and medicine and the increased need for psychologists working within medical settings. It is possible that the proportion of private practice psychologists in this study is representative of the larger sample of psychologists working in reproductive medicine. It also is possible that selection bias interfered with study results; that is, it is possible that psychologists working in reproductive medicine centers were, for some reason, less likely to respond to the study recruitment advertisement, or that private practitioners were more likely to respond. For example, clinicians in private practice might work fewer hours or have more control over their own work schedules, and therefore find participating in a research study more feasible.

Psychologists were also asked to report whether they worked full-time or parttime. Nine participants identified as working full-time, although the average number of work hours reported was thirty-one hours per week. Participants reported spending an average of 74% of their time working in reproductive medicine. Given that not all participants worked within reproductive medicine centers, it is logical that not all participants spent 100% of their professional time on reproductive medicine related work. Participants also reported how long they had been working as psychologists, and as psychologists within reproductive medicine. There were fewer early career psychologists represented in this study, as participants had been working as licensed psychologists for an average of twenty years, with a range of years since licensure from six to thirty-seven. Participants had been working in the field of reproductive medicine for an average of seventeen years, with a range of years working in the field from six to twenty-nine. Psychologists also reported being involved in all of the professional activities described in Covington and Hammer Burns' guidelines (2006a) on infertility counseling, developed by and for the Mental Health Professional Group of the American Society of Reproductive Medicine, including psychological assessment and screening, diagnosis and treatment of mental disorders, psychometric testing, decision-making counseling, couple and family therapy, grief counseling, supportive counseling, education/information counseling, support group counseling, referral/resource counseling, staff consultation, crisis intervention, sexual counseling and psychotherapy. Psychometric testing is identified within these guidelines as a professional skill unique to psychologists. Many of the psychologists involved in this study identified psychometric testing to be a professional activity in which they were regularly engaged; however, psychometric testing comprised a relatively small portion of participants' weekly professional activities. Participants reported spending an average of 3.7% of their time on psychometric testing. Participants identified direct clinical work, including psychotherapy and counseling, as comprising the majority of their work hours.

These results show that, for participants in this study, most of the daily activities they were involved in did not represent skills unique to psychologists in the context of infertility counseling guidelines. Research, scholarly writing and program evaluation are skills that are not mentioned within the infertility counseling guidelines, as these skills may perhaps be more relevant to clinicians less involved in direct care. Participants reported spending an average of approximately 10% of their time involved in research, approximately 2% of their time involved in program evaluation, and approximately 10% of their time involved in writing, giving professional talks, and administrative work.

Despite results showing that psychologists are heavily involved in clinical work in reproductive medicine, results also highlight psychologists' unique contributions to the field outside the context of infertility counseling. These skills are unique to psychologists' roles and add a professional niche for psychologists within reproductive medicine.

Themes around work-life balance, although not part of the original semistructured interview, also emerged within some participants' interviews. Some of the younger participants reported working part-time in the interests of managing childcare and professional responsibilities. These participants, some of whom worked in private practice and one of whom worked within a reproductive medicine center, considered their careers to be flexible and compatible with their personal roles. One participant also discussed the implications of working with reproductive medicine patients during her own pregnancies. Although some scholarly writing has been published on the effects of the therapist's pregnancy on psychotherapy patients (Fenster, Phillips and Rapoport, 1994; Orber, 1989), and some on the psychologist's own infertility in reproductive medicine work (Freeman, 2005), little is known about the effect of the infertility counselor or psychologist's pregnancy on the infertility patient and his or her family. For the participant in this study, her pregnancy served as an opportunity to help some of her patients work through their psychological distress. Moreover, her pregnancy did not appear to affect her patients on as large a scale or as negatively as she had anticipated.

#### How Participants Became Involved in Reproductive Medicine

Extant literature (Covington and Marosek, 1999) suggested that approximately half of mental health clinicians working within reproductive medicine had experienced problems with fertility, with almost three-quarters of those clinicians having come to the field of reproductive medicine after the experience of infertility. These data were cited from one study over ten years prior to this study; moreover, respondents to the survey had included mental health clinicians other than psychologists. The present study sought to understand what proportion of psychologists in the research sample had pursued careers in reproductive medicine as a result of their own experience with fertility problems. Results showed that five psychologist participants, or approximately 42% of the twelve participants, identified themselves as having come to the field of reproductive medicine through their own personal experiences with infertility. Seven psychologists, or approximately 58% of participants, identified other reasons for having come to the field. Although some participants cited anecdotal evidence and imagined that at least three-quarters of psychologists in reproductive medicine had had personal experiences with infertility, only approximately half of the participants had a history of fertility problems.

The psychologist participants who came to the field of reproductive medicine through their own personal experience were asked to discuss how the experience related to their professional work. Participants identified the passage of time as a helpful factor in decreasing the emotional discomfort of the clinical work. Participants also pointed to the need to understand and examine one's own history and its impact on professional work. Participants also pointed to the advantage of having had personal experience, citing the idea that personal experience may inform their understanding of patients' experiences and increase their own empathy. Participants differed on the opinion of whether one's own history should be disclosed to reproductive medicine patients, and how much of one's own experience to consider in working with these patients.

Several variables likely account for the fact that slightly over half of participants had not had personal experience with infertility. First, the psychologists who participated in this study who did not come to the field through personal experience had prior interests in health psychology, behavioral medicine, or psychological testing. One psychologist had had family members with infertility, but this participant also had a general interest in behavioral medicine. Overall, participants who had had prior professional interests in health psychology and behavioral medicine did not conceptualize their current professional roles to be very different from what they had imagined, because their training was oriented to the integration of psychology and the medical field. These data highlight the changing landscape of psychology. That is, psychologists may indeed be becoming more integrated into medical fields, serving as doctoral-level consultants to physicians and other medical providers. As knowledge is gained and niches of professional expertise are demanded by patients, professionals, and billing standards, the field of psychology is also branching out into specialty and sub-specialty fields. Reproductive medicine is a clear example of one of these areas of professional expertise for psychologists.

Other variables also could account for the lower proportion of psychologists in this study with personal experience in reproductive medicine as compared to a previous sample. It is possible that psychologists with personal infertility experience chose not to participate in this study. The study advertisement sought to recruit psychologists who would speak about their professional experiences for sixty to ninety minutes, and it is possible that psychologists with personal experience imagined that they might be asked about their own, perhaps sensitive histories during the interview. Despite the clear statement that all results would be kept confidential and that participants would be encouraged not to disclose any information they would not be comfortable sharing, it is possible that psychologists with personal histories were less likely to participate in this study due to the potentially personal and sensitive nature of the interview.

Finally, and importantly, only twelve psychologists participated in this study. Given the small sample size of this study and the qualitative research methods chosen to gather the data, results from this study cannot, and should not be generalized to the general population of psychologists working in reproductive medicine or any other medical field. This research sample was used to provide an exploratory lens into the experiences of small portion of the psychologists working in this field. As predicted, psychologists' experiences in this study were fairly variable. Participants' experiences suggest that more research, inclusive of more psychologists, could help to deepen the understanding of psychologists' personal experiences in reproductive medicine. Quantitative methods, for example, could be utilized as a way to gain access to more participants and provide a less time-consuming, as well as emotionally sensitive medium through which to gather personal data from psychologists in this field.

# Participants' Current Professional Roles as Compared to Early Professional Experiences

The majority of participants in this study reported that their current professional roles were very different from how they had imagined their careers to be. Several older participants identified feeling as though they had served as a sort of pioneer in the field of reproductive medicine, doing their own research, shaping their careers, and paving the way for psychology to be integrated into a field so oriented to medical procedures and emerging technology. Some participants felt that their professional roles were not as different as they had imagined. One of these participants works in private practice, not only with reproductive medicine patients. Others work in private practice or clinics, but studied health psychology in graduate school and thus had always imagined working with a health psychology population.

Some participants identified initially not knowing that reproductive medicine existed as a field in which a mental health professional could work, and coming into the field of mental health when reproductive medicine was an emerging specialty. Several participants who did not have backgrounds in health psychology reported that they never would have imagined that their practice would involve such a prominent medical component. Some participants cited personal experience with infertility, which they had not anticipated, to be influential in shaping a career in reproductive medicine. The participants who did not have a background in health psychology still found their training to be relevant in preparing them for a career in reproductive medicine. Although all participants had to gain specialized knowledge in the field, most participants felt that their graduate programs, which trained them in critical thinking, research methods, psychotherapy and psychological assessment, had provided a solid foundation from which to take on this specialized career. Overall, psychologist participants appeared to be able to successfully reconcile differences in their training with the current demands of a practice within reproductive medicine. Nonetheless, participants' experiences of their professions as being significantly different from how they had imagined them to be is a clear representation of the growing integration of psychology and medicine, including psychology and reproductive medicine.

## The Relationship between Psychology and Reproductive Medicine

Given the growing integration of psychology and medicine, as well as the limited knowledge on psychologists' experiences of this systemic change, an important goal in this study was to gain a more comprehensive picture of psychologists' understanding and experiences of the relationship between psychology and reproductive medicine. Major themes identified across participant interviews included the idea that the relationship between these two fields is obvious and important to recognize. Many psychologists spoke about how medical professionals and psychologists teach each other and inform each other's work. At the same time, participants felt that there is currently insufficient integration between psychology and reproductive medicine, and that psychological services are undervalued and underutilized. Many participants spoke about the clear connection between the mind and body, and the effect of one's distress on the other, but the healthcare system's inability to effectively integrate care due to systemic issues and political barriers. These perspectives were consistent with literature found (Kathol et al., 2010; Kainz, 2002) on the obstacles psychologists may face in being able to effectively serve the large numbers of reproductive medicine patients. Participants' perspectives on the complexity of the integration of psychology and medicine are further explored in the below section exploring the challenges and rewards of psychologists' work in reproductive medicine.

An interesting theme brought up in this conversation was the idea that reproductive medicine patients are not a clinical population, and that many psychologists, particularly clinical psychologists, have training in the diagnosis and treatment and psychiatric disorders. Some participants, including those who had backgrounds in health psychology and counseling psychology, explained that reproductive medicine patients are a population under significant stress. These participants were of the opinion that most people have the ability to be resilient and do not develop psychiatric disorders, and that therefore, reproductive medicine patients should not be pathologized based on their potential to develop extreme emotional reactions to the complex stress of infertility. This concept was consistent with the findings of Covington and Hammer Burns (2006), indicating that psychiatric disorders do not occur at a higher rate in infertility patients, and that most reproductive medicine patients do not experience significant psychological trauma or psychopathology. Nonetheless, patients' exposure to advanced medical technology and/or third-party reproduction, as well as multiple other systemic, medical, and financial stressors, can increase psychological distress. More recently, Holley, Passoni, Nachtigall, Bleil, Adler, and Pasch (2012) and Pasch, Holley, Bleil, Shehab, Nachtigall and Katz (2012) have found increased rates of depression in female infertility patients, particularly those undergoing in vitro fertilization treatment who have

experienced a cycle failure. Holley and colleagues round that 38.6% of women assessed following one failed IVF cycle met diagnostic criteria for Major Depressive Disorder, compared to a twelve-month prevalence rate of 6.7% in the United States general population (National Institute of Mental Health, 2013). Although women tend to have a higher rate of depression than men, these empirical data strongly suggest that infertility patients may indeed suffer from increased rates of some psychiatric disorders, suggesting continued psychological intervention throughout and perhaps after infertility treatment.

## Theoretical Orientation

Of the twelve psychologists who were interviewed for this study, five identified themselves as cognitive-behavioral, four identified themselves as theoretically integrative, and three identified themselves as psychodynamic or psychoanalyticallyoriented. Of the four psychologists who identified themselves as theoretically integrative, three felt that psychodynamic theory was more prominent in their work, and one felt that cognitive-behavioral theory was more prominent in her work. One psychologist who identified herself as cognitive-behaviorally-oriented reported having a background in psychodynamic theory, but said that her work had become more cognitive-behavioral over the course of her career.

Applegarth (2006) discusses five theoretical frameworks that may be utilized in psychological interventions with reproductive medicine patients. These frameworks include psychodynamic psychotherapy, cognitive-behavioral therapy, strategic/solutionfocused brief therapy, crisis intervention, and grief counseling. Applegarth presents psychodynamic therapy as conducive to either a brief or long-term duration, as long as treatment interventions are based on certain psychoanalytic principles, defined by Applegarth as understanding cognitive and affective patterns derived from childhood, as well as understanding the conflicted relations one had with significant childhood figures as they are re-experienced in the therapist-patient relationship. She highlights the utility of psychodynamic therapy for reproductive medicine patients in that it allows patients to explore and recover from unresolved issues and conflicts from the past, which may resurface in the context of the complexity of reproductive medicine treatment. Applegarth points out that in general, long-term interventions may not be useful for reproductive medicine patients, who are not looking to change their behaviors or personalities in fundamental ways, but rather are seeking emotional help in the midst of a crisis. Many of the participants in this study who identified themselves as psychodynamically-oriented did report working with patients long-term; however, consistent with the literature, these participants also emphasized the importance of understanding patients' early experiences in helping them to cope with current life stressors. These participants also discussed the need to help patients explore and work through the developmental and identity conflicts that may be brought up in the course of reproductive crisis.

Applegarth also discusses the utility of cognitive-behavioral therapy for reproductive medicine patients. Study participants identified this therapy modality as particularly conducive for reproductive medicine patients because it offers a solutionfocused treatment and works with patients to change unhelpful thoughts, behaviors, or aspects of their environment that may be contributing to or causing psychological distress. Cognitive-behavior therapy offers a solution-based approach, teaching patients coping skills to survive times of crisis and more effectively manage future stress, which is critical in the complex, sometimes longitudinal trajectory of reproductive medicine. Applegarth also points to cognitive-behavior therapy's cost-effectiveness in treating a wide range of reproductive medicine patients' problems in the short-term.

Overall, participants across theoretical orientations had compelling reasons for how their particular way of conceptualizing human beings and behavior was particularly relevant to working with a reproductive medicine patient population. While psychodynamically-oriented clinicians emphasized the need to explore the effect of early experience on patients' current experiences and ways of managing stress, cognitivebehaviorally oriented psychologists stressed the importance of skills-based interventions for patients in crisis. Much of the literature published on psychological interventions in infertility populations cites the benefits of cognitive-behavioral treatment. Verhaak and Hammer Burns (2006) emphasize the effectiveness of cognitive-behavioral therapy, especially cognitive restructuring techniques, within the context of general behavioral medicine and health psychology interventions, in helping reproductive medicine patients cope with and manage their distress. Domar, Clapp, Slawsby, Dusek, Kessel and Freizinger (2000) cite the efficacy of group cognitive-behavioral interventions with infertile women. In the present study, health psychologists also emphasized the utility of cognitive-behavioral work and underscored the importance of a stress and coping model in working with reproductive medicine patients. Rather than focusing on the potential for psychopathology, they highlighted human beings' underlying resilience in managing the complexity of reproductive medicine diagnoses and treatments. Last, many psychologist participants described themselves as being theoretically flexible and integrative in some capacity in working with reproductive medicine patients.

#### Challenges and Rewards of Being a Psychologist in Reproductive Medicine

The main challenges that emerged across participant interviews included managing emotional challenges, that is, working with patients in crisis, many of whom have experienced multiple traumas and challenges, working with other professionals in the field, financial challenges, and ethical challenges. Many participants discussed the difficulty of working with patients who had experienced significant infertility, including miscarriage, stillbirth, and years of failed attempts to conceive. Participants discussed the difficulty of managing their own emotional responses, while still needing to effectively work with their patients. Some participants discussed their own histories as contributing to the emotional difficulty of the work, although participants also identified factors that help them cope with the emotional challenges, including their own successful reproductive outcomes, peer supervision, and self-care.

Working with other professionals in the field was another topic that emerged across several participants' discussion of professional challenges. Some participants discussed feeling as though they are lower on the medical hierarchy and sometimes not as valued as physicians, or not valued by physicians. The competition within mental health practitioners in reproductive medicine also was brought up by participants as being challenging to navigate. One participant discussed the difficulty of working with nurses, and explored competition for professional territory, including providing emotional support to patients. There has been literature on the challenges faced by nurses in medical and reproductive medicine fields (Cherniss, 1995; Jackson, 2005), and this participant shed light on the psychologist's perspective of professional collaboration with nurses.

81

Consistent with the extant literature (Kathol et al., 2010; Kainz, 2002), psychologists also identified facing financial and ethical challenges in their work in reproductive medicine. Some participants pointed to the insufficient compensation for psychologists in the field. Others highlighted the challenges posed by managed care, in terms of what portion of reproductive medicine services, and what types, may be reimbursed by insurance companies. Some participants pointed to professional competition and the difficulty of keeping a successful full-time private practice afloat. Psychologists also reported having a significant role in helping both patients and other reproductive medicine professionals manage the ethical dilemmas brought on by the rapid advances in reproductive technology. Of the myriad ethical dilemmas that may present in reproductive medicine, some of those identified by participants revolved around the compensation of gamete donors, gestational carriers, and related professionals, decisions involved in choosing donors and carriers, and pre-implantation screening for genetic and non-genetic reasons.

Participants also reported many professional rewards in their reproductive medicine work. A main theme that emerged within this section of the interview was the reward of helping people; however, helping people was not always defined by participants as helping people in the process of obtaining a successful reproductive outcome. Participants' responses were more nuanced, and involved the idea of helping people to make a decision that was right for them, helping people to accept an initially dissatisfying reproductive outcome, helping people to feel "unstuck" in their lives, and helping people to connect with others. Satisfying pregnancy and birth outcomes also were identified by participants as being especially rewarding to be a part of and witness.

82

Participants also identified enjoying being part of cutting-edge scientific work that continues to rapidly change and provide intellectual stimulation.

Many of the professional challenges cited by participants also emerged as rewards. Many participants identified having experienced great professional and personal growth from enduring the personal, emotional, and ethical challenges involved in reproductive medicine work. Several participants pointed to being "lucky" and fortunate to have found such a unique, stimulating, and rewarding field. Working with professionals, although sometimes challenging, also was identified as a significant professional reward, in that working in the midst of multiple disciplines was ultimately stimulating and eye-opening. Many participants reported feeling supported by other psychologists in the field. Some participants did not mention any challenges in working with other professionals in the field, including physicians. These participants felt supported, stimulated and excited by their work. This finding is important to note in light of the literature on the barriers psychologists face working in medical fields, as well as contrary findings within the present study.

## Psychologists' Unique Roles in Reproductive Medicine

Another primary goal of this study was to gain a more nuanced understanding of psychologists' unique roles in reproductive medicine. Specifically, the researcher aimed to understand psychologists' roles from their perspectives, rather than from reviewing guidelines or quantitative information. Overall, the ability to administer and interpret psychological tests emerged as a common response for how psychologists' roles are unique. Although many other mental health practitioners provide psychological

assessment and psychotherapy, and other professionals can conduct research or publish scholarly writing, only psychologists are currently able to administer and interpret psychological tests. This skill set is key in a field in which the assessment of egg donors and gestational carriers is a critical component of the process of third-party reproduction.

Participants also identified traits that may be attributed to other mental health providers in terms of what they "bring to the table" of reproductive medicine work. These skills, consistent with the guidelines set for infertility counselors by the American Society of Reproductive Medicine (Covington and Hammer Burns, 2006a), included providing assessment, psychotherapy, counseling, consultation, and psychoeducation to patients and staff, particularly in times of crisis. Some participants identified psychologists' exposure to severe psychopathology as being relevant to working with reproductive medicine patients, especially with regard to the decisions involved in screening egg donors and gestational carriers.

Participants also identified the breadth and depth of doctoral training that renders psychologists as particularly well-suited to contributing to reproductive medicine. Psychologists identified their critical thinking skills, scholarship and writing, and training in research methods to be useful in the assessment and treatment of patients and the critical evaluation of research as it informs clinical work. Overall, many participants brought up or referenced psychologists' training in the scientist-practitioner or practitioner-scholar training model, which allowed them to serve as a bridge between psychology and medicine. Some participants also pointed to the utility of the doctorate in earning respect from colleagues within the field. Most of the psychologists who participated in this study were not heavily involved in research, although some participants identified research as an important skill that psychologists bring to reproductive medicine. Only a total of five out of twelve participants reported research as being part of their regular professional activities, and those participants reported a range of one to fifteen hours of research engagement per week. It is possible that the individuals who chose to participate in this study were likely to be more heavily involved in clinical work as opposed to research, given that they were all part of the Mental Health Professionals Group and largely worked primarily in private practice. That is, other psychologists working in reproductive medicine, some of whom may not belong to this professional group or work primarily in private practice, may spend more time involved in research. Or, it is possible that the research sample was a more accurate representation of psychologists working in reproductive medicine and that clinical work does, indeed, comprise a large amount of their time. Despite participants' heavy involvement in clinical work, they did not appear to identify simply as "infertility counselors," but rather as critical thinkers and comprehensive contributors to the field of reproductive medicine.

#### What Professionals and Patients Should Know about Psychologists' Roles

Another goal of this research was to elicit what psychologists feel is most important for professionals and patients to know about their contributions and experiences working in reproductive medicine. That is, psychologists were asked to examine their roles from others' perspectives. Given the systemic, financial, political, emotional and ethical challenges that psychologists face working in this field, the researcher also aimed to learn how psychologists might feel better supported, and how their skills could be best utilized within reproductive medicine.

Major themes identified in this section included psychologists' ability to provide expert, comprehensive support for patients, and the message that emotional support through infertility and other reproductive interventions is critical. This theme is echoed in the recent research on the psychological impact of infertility treatment. Domar, Rooney, Wiegand, Orav, Alper, Berger, and Nikolavski (2011) found that a mind-body therapy program was associated with positive pregnancy outcomes on a second IVF cycle for participants who had attended at least five of ten therapy sessions. Pasch, Gregorich, Ouimette, Wing, Katz, and Adler (2005) found that although women whose infertility is resolved through birth or adoption may have improved psychological adjustment, women who experience ongoing infertility may exhibit depression, anxiety, and stress. These data point to the critical need for psychological interventions for women whose infertility treatments are unsuccessful, particularly those who may no longer be connected to an infertility clinic. This finding is consistent with another theme identified in the present study: in addition to identifying the ability to support patients through infertility treatment, psychologist participants also discussed being available to help patients for the long-term and to facilitate ongoing adjustment after treatment.

The idea of psychologists' training in systems theories also was brought up as conducive to their being able to help patients and providers navigate the complex world of infertility and reproductive medicine. Another concept brought up, more relevant to what other professionals should know, was the idea that psychologists and other providers should advocate at the policy level for the continued integration of psychology and reproductive medicine. Participants considered their contributions to reproductive medicine to be multi-faceted. Psychologists' critical thinking skills, stemming from comprehensive doctoral training in research, theory, and practice, was considered to be uniquely geared to supporting patients through complex medical interventions and other emotionally difficult processes.

Participants also were asked how they might feel best supported in their roles, and how their comprehensive skills could be best utilized within reproductive medicine. Despite the professional challenges found in the literature and in earlier sections of the interview, many participants identified feeling well supported in their professional roles, both by other psychologists as well as other reproductive medicine professionals. In general, participants cited peer supervision as being very helpful in managing the challenges associated with work in reproductive medicine. Several participants, some of whom work in private practice, brought up the wish for increased peer supervision of their unique work. Other participants brought up the wish for increased financial compensation, including from insurance companies, as well as increased recognition from other medical professionals. The problem of a lack of recognition may be representative of a larger problem in which medical professionals may provide insufficient information and support to infertility patients who may suffer from depression and anxiety following treatment. Pasch, Holley, Bleil, Shehab, Nachtigall, and Katz (2012) found that levels of depression in fertility patients and their partners are high, and further, that most of these patients and their partners do not receive referrals to mental health services from their infertility clinic. This research echoes findings by Smith (2006) and may represent a systemic problem involving the lack of integration between psychological services and reproductive medicine.

87

#### Participants' Experiences of Contributing to this Study

Overall, participants reported that participating in this study was a positive experience. Several psychologists identified the opportunity to "vent" in a safe, confidential place. Participants noted that, given the small community of psychologists and other mental health clinicians working in reproductive medicine, it is not often that one may be fully honest about one's opinions, even in the company of trusted colleagues. As psychologists do a significant amount of listening in their daily work, a few participants reported that participating in this study was pleasurable because, instead of listening, they could simply talk. Many of the participants were eager to learn about the study results, and, during the interview, some asked if the researcher had heard about experiences similar to theirs. Of note, many participants were very concerned about their own confidentiality in participating in this study. Participants spoke openly about their professional identities, experiences and opinions, but some participants requested that information not be included in the final dissertation. The researcher took these concerns very seriously and did not include any data that participants did not give both verbal and written consent to include.

## Limitations of this Study

The qualitative methods chosen for this study were selected in the interest of gaining a window into a portion of a unique group of mental health professionals, specifically, psychologists working in reproductive medicine. Through the brief questionnaire and semi-structured interview, the researcher obtained thick description of psychologist participants' rarely studied experiences working in this quickly growing

medical field. Because of the small sample size of this study, as well as the variability across participants' experiences, results from this study cannot be generalized to the larger population of psychologists working in reproductive medicine. The results obtained in this study provide depth, rather than breadth, in understanding the unique experiences of psychologists working in reproductive medicine.

In addition to a small sample size, this study was limited in the demographics of the research participants. Eleven participants in this study were female, and one participant was male. Although anecdotal data from participants suggest that there are many more female than male psychologists working within reproductive medicine, the lack of diversity in gender-specific professional experiences is notable for this study. Further, all participants in this study described their race as Caucasian and their ethnicity as non-Hispanic/Latino. Although some participants identified religion or ancestral country of origin, it is notable that all participants were Caucasian and non-Hispanic/Latino. Further research is critically needed in order to understand the experiences of minority psychologists working in reproductive medicine, and how their experiences relate to the professional community at large.

Participants also were limited in representation of age. Although the range of participants' ages was thirty-eight to sixty-four, the mean age of the twelve participants was fifty-three. Participants worked, overall, an average of thirty-one hours per week, and had been working as licensed psychologists for an average of twenty years, despite the range of years since licensure being from six to thirty-seven years. These results suggest that the experiences explored in this study may be more representative of later career psychologists' experiences than early career psychologists', and that selection bias may

89

have affected study results. It is possible that early career psychologists are not well represented in this field, or that their professional lives were busier than could allow them to contribute sixty to ninety minutes to an interview. In sum, diversity in race, ethnicity, gender and age was significantly limited in this study. It is possible that the research sample was representative of the population of psychologists working in reproductive medicine and that the demographics of this field may be relatively homogenous; however, further research would be needed before this conclusion could be made. Further research also would more fully represent the experiences and identities of psychologists working in this field.

The specific qualitative research methods chosen for this study posed some potential problems in the validity of study results. First, due to the exploratory nature of this study, there was no control group to compare experiences. There was no way for the research to understand how certain factors, for example, demographic factors or differences in professional experiences such as number of years working, affect the overall themes. Because the primary instrument used to collect data was a semistructured interview, it was unlikely and unexpected that all twelve participants would be asked the exact same research questions. This phenomenon was logical when, for example, a particular question did not relate to a participant's experience, or a participant had more to say about one topic versus another. The interview was semi-structured in order to account for these expected individual differences. The potential threat to validity lay in whether the researcher incorporated bias into the research questions, for example, personal bias based on the casual, personal nature of the interview, which could have changed results or left out data.

Certain questions called for verbal re-wording on the part of the researcher; for example, the researcher observed that several participants appeared confused by the broadly worded questions, "How do you conceptualize the relationship between psychology and medicine? How do you understand this interdisciplinary relationship as it relates to reproductive medicine?" In this case, the researcher tried to re-word the question more specifically in a similar way for each participant. The researcher was trained to administer the semi-structured interview and made the best effort possible to reduce potential bias in stating the interview questions. Overall, the researcher attempted to use the same wording for all interview questions, and attempted not to skip any that were observed to be relevant to each participant's experience. The researcher also stated the questions in order, as they appeared on the semi-structured interview. There was some potential for bias in the order of the questions; for example, the question, "What is it like working with other professionals in this field?" appeared immediately following the question, "What is most challenging about conducting your work?" It is possible that, given the extant literature on this topic, the researcher showed possible confirmation bias in placing these two questions together; however, participants did, overall, report that their experience working with other professionals was positive or neutral. This result suggests that it is perhaps less likely that participants were somehow cued in their responses to this question.

There also were potential threats to validity of data observed in participants' responses to the demographic questionnaire. Several participants were confused by the categorization of clinical hours into "counseling" vs. "psychotherapy" hours. For the purposes of this study, "counseling" hours were defined as short-term clinical

interventions, psycho-education, and coping skills training. "Psychotherapy" hours were defined as psychotherapy for at least twelve sessions or longer-term psychotherapy. One participant, who identified her theoretical orientation as cognitive-behavioral, commented that she was unsure of how to respond to the form because she never worked for more than twelve sessions, but still felt that she conducted psychotherapy. In order to ensure reliability across participants' responses, this participant was instructed to mark "counseling" hours, but her confusion highlighted the fact that the demographic form may not have completely accurately captured participants' ideas of their professional work. Moreover, it was possible that other participants had questions, but did not ask the researcher for clarification.

Last, a related question participants had on the demographic form was in response to the question on the interview, "How many years have you been working in this field?" The demographic questionnaire had instead requested the number of years that participants had been licensed to practice psychology. It became clear that some of the participants in this study, specifically, those in private practice, conducted other professional activities in addition to reproductive medicine work. It was unclear whether the proportion of activities reported by these participants on the demographic form was for reproductive medicine hours or total clinical hours. In order to clarify potential differences or inaccuracies in responses to these two questions, the researcher, under the supervision of the dissertation chair, chose to contact these participants by electronic mail in order to request clarification. Participants responded with how many hours they spent on reproductive medicine activities versus general activities.

#### Implications for Future Research

The present research study helped to illuminate the role of the psychologist in reproductive medicine. This role had been relatively unexplored in previous research, especially as a nuanced role that is distinct from the role of the infertility counselor. In the present study, psychologists helped to differentiate themselves as scholars well versed in research methods, scientific thinking, and specialized clinical interventions, including psychological testing. Psychologists presented their role as one bridging the scientific with the psychological, a task that is critical to the emotionally and medically complex world of reproductive medicine. Nonetheless, study limitations suggest that further research is needed to fully understand psychologists' experiences working in this field. Importantly, early career psychologists, psychologists of color, and male psychologists were significantly underrepresented in the present research sample. Psychologists with primarily research careers also did not participate in this study. Further research would help the reproductive medicine and mental health communities to understand the experiences and contributions of these psychologists, whose voices and roles play key functions. Further research also could include a larger sample of psychologists and could survey psychologists on a larger variety of topics, such as current ethical or medical dilemmas in the field, or could be directed to explore certain topics more closely, such as psychologists' personal experiences with infertility.

## Implications for Practice

Results from this study, taken together with the extant literature on psychologists' roles in reproductive medicine, suggest that psychologists play a key role in reproductive

medicine patients' care. Further, although some reproductive medicine patients, such as patients involved in egg donation and surrogacy, are required to see a psychologist, other patients, many of which may suffer from depression, anxiety, or other psychological distress, do not appear to receive referrals for psychological care. A theme from the present study, which is supported by the literature, is that psychologists are underutilized and undervalued within the field of reproductive medicine, despite the significant effect that their interventions may have on patients' physical well-being, and possibly even pregnancy rates. Results strongly suggest that other professionals within reproductive medicine could benefit from workshops or trainings to increase awareness of the importance of involving psychologists in the care of reproductive medicine patients, even if patients are not involved in third-party reproduction interventions that require a psychologist. Reproductive medicine professionals also should be aware of patients' vulnerability to develop psychological distress over the course of treatment. Combined with their ability to treat patients' psychological distress, psychologists are also in a place to educate and support the medical team in managing patients' distress, creating a more pleasant and stimulating environment for both staff and patients. Psychologists play a critical role in reproductive medicine, and this role should be emphasized, and its presence increased, in future practice.

## The Role and Experience of the Researcher

I chose to explore my role and experience as the researcher in this study as a way to understand the qualitative researcher's experience as a participant observer. I was interested to evaluate the relationships that I developed with the research participants, as well as my feelings about the themes elicited in this study. As I have had extensive training in understanding patient-therapist relationships, I was well aware that my influence on the research interview process would be important to explore. I also was interested to understand my role as a researcher on psychologists' roles in reproductive medicine in the context of the changing landscape of psychology and reproductive medicine.

I began my research inquiry with very little background on this topic, but my interest in reproductive medicine has been for as long as I can remember. Before I was born, my parents struggled through infertility for several years. This struggle was openly talked about with me and with our friends and family, especially when I grew old enough to ask why I did not have siblings, or received similar questions from friends. The story of infertility has always been a family narrative for me. I have always had an appreciation for the complexity of the reproductive system and I have never taken for granted the idea that people can simply have a baby whenever they choose to. As I grew into childbearing age, I wondered how this interest would play out in my professional and personal lives. At the time of the writing of this dissertation, I have not yet tried to have children, but hope to in the future. It was interesting to approach this research topic having not had any direct personal experience with reproductive medicine, but through this research, I have begun to develop what I hope will result in a professional expertise in the field.

As I spoke with each of the twelve participants in this study, I was fascinated to observe the unique relationships that I developed with each psychologist. In terms of the experience of conducting the interview itself, some participants spoke a lot, and some spoke less. Some spoke excitedly and quickly, and some spoke slowly and carefully. I found it rewarding to learn from each participant. Some participants also offered to keep in touch after the study, and requested that I keep them abreast of my professional activities. Listening to and transcribing the twelve interviews, I was aware of how my own interviewing style changed over the course of the interviews to match the affect and style of each participant. This experience certainly confirmed for me the idea of a twoperson psychology (Hoffman, 1983), in which the self is conceptualized as being differentiated into parts, each of which may surface more prominently in different interpersonal contexts. I hope that the changes in my interviewing style helped to facilitate participants' expression of their stories. In listening to the interviews and transcribing them, I also was reminded of my general learning style as auditory; that is, I tend to encode and retain information best when I hear it, and often, when I then write it down. I have always had this experience in school, often finding that I more effectively absorb information when it is heard rather than read. I feel that listening to each interview live and then a few times as I transcribed, I feel that I gained a more intimate and in depth understanding of the themes discussed.

While conducting the interviews, I was forced to grapple with some of the challenging aspects of psychologists' work in reproductive medicine. First of all, I learned a great deal about medical interventions and reproductive technology interventions, many of which I had read about, but not understood in depth. Like the participants in this study, I found it emotionally challenging to hear some of the traumatic stories of reproductive medicine patients. I also was confronted with some of the ethical challenges that psychologists face. One participant asked me if I thought I could ever be an egg donor. I responded that I knew that I would not be able to do so, because if the

donation resulted in the birth of a child, I would think of the child as my own and be too emotionally disturbed to tolerate the idea of someone else raising the child. This participant was interested to hear my response, and, with raised eyebrows, suggested that I think deeply about my opinions on these topics if I am interested to cultivate a professional expertise in reproductive medicine. Indeed, the patients, donors and professionals involved in reproductive medicine have varied opinions on these topics. In considering my potential work in reproductive medicine, I will certainly take this participant's suggestion seriously. I must continue to examine my own personal values and biases before evaluating or treating the patients and third-party candidates in this field so that these biases do not interfere with my clinical work.

I appreciated the research design chosen, and felt that qualitative methods helped me to answer my original questions well. In conducting the interviews, I found it helpful to adhere to the interview structure, but I also learned when certain questions or probes would not be relevant for a participant, and was thus able to tailor interviews to address individual participants' experiences, without threatening the reliability or validity of the research methods. Overall, I found that participants were very interested to learn about the results of this study, suggesting a general curiosity among reproductive medicine psychologists about other psychologists' experiences. At the same time, participants were very cautious about confidentiality, given that this is such a small professional community. Although I would have been interested to present case studies to make each participant's story come alive to the reader, I was continuously aware of the importance of confidentiality. I took participants' concerns very seriously, instead presenting the interview data in categories related to themes. A disadvantage of presenting the data in this way is that I often found commonalities between theme categories; that is, similar ideas emerged across multiple categories or interview questions. I attempted not to be redundant in presenting the results of this study by theme.

Across the twelve interviews, I never got bored of the research topic. It was truly a pleasure to speak with each of the psychologists involved in this project. Keeping in mind the fact that participants voluntarily contributed to this study, and therefore had a personal interest in discussing these themes, I found participants very willing to help, energetic, passionate, inspiring, and very interesting. Psychologists' professional stories and credentials were impressive, and they were extremely knowledgeable, talented, creative, and articulate in discussing their roles in reproductive medicine. Participants' contributions were invaluable, and I find myself at a place of greater knowledge and understanding as I potentially enter this field.

#### CHAPTER V

## CONCLUSION

Reproductive medicine is a field that has been exponentially expanding and growing in complexity over the past three decades. Psychologists have played an important role in reproductive medicine, as infertility counselors, but also as consultants, researchers, and psychological examiners. Given the rapid in increase in technology, as well as societal trends involving different ways of building families, reproductive medicine is likely to continue to grow very quickly, and psychologists' roles in the field may become more and more important. Few research studies have been conducted on psychologists' experiences in the field of reproductive medicine.

In the context of the changing landscape of reproductive medicine and psychology, this qualitative study aimed to explore the distinct experience of the psychologist in reproductive medicine and, in particular, the unique roles of psychologists in reproductive medicine. Exploratory research questions shed light on psychologists' daily activities and their experiences of their roles, including professional challenges, rewards, and the experience of interdisciplinary work. Psychologists were asked to discuss their training, whether there were differences between their practice and training, and if so, how they reconciled those differences. The researcher also sought to understand psychologists' conceptualization of the relationship between psychology and reproductive medicine, as well as what they feel others should know about their roles and how their skills may be best utilized.

Psychologists' experiences in the field of reproductive medicine were varied, and study results should not be generalized to the larger population of psychologists in this field or in the broader field of psychology. Overall, participants presented themselves as being comprehensively trained in scientific research, theory, and practice, making their roles especially suitable for work in reproductive medicine. Psychologists' training in psychological testing was brought up as a distinct and important contribution to the field of reproductive medicine. Psychologists discussed their contributions as being valuable not only to patient care, but to the efficiency and well-being of reproductive medicine practices. Psychologists discussed their experience of their roles as underutilized and undervalued, although challenges of working within a managed care health system also were brought up as professional obstacles. In sum, psychologists' roles in reproductive medicine are distinct, valuable, and necessary for the evaluation and treatment of infertility patients and third-party candidates. Despite systemic challenges, results show that reproductive medicine professionals and psychologists should continue to work together towards an integration of these two fields, which will undoubtedly enrich professionals' work and best serve patients' complex needs.

### References

- Applegarth, L.D. (2006). Infertility counseling in practice: A collaborative reproductive healthcare model. In Covington, S.N. & Hammer Burns, L. (Eds.) *Infertility counseling: A comprehensive handbook for clinicians*. (2<sup>nd</sup> ed.) (pp. 129-142). New York: Cambridge University Press.
- Applegarth, L.D. (2005). The therapist's negative preconceptions about infertility treatment. In Rosen, A. & Rosen, J. (Eds.), *Frozen dreams: Psychodynamic dimensions of infertility and assisted reproduction* (pp. 69-83). Hillsdale, New Jersey: The Analytic Press.
- Belar, C. (2011). Why it's essential to work with other disciplines. *Monitor on Psychology*, *42*(8), 34.
- Carlstedt, R.A. (Ed.) (2010). *Handbook of integrative psychology, psychiatry, and behavioral medicine: Perspectives, practices, and research.* New York: Springer Publishing Co.
- Carmin, C.N., Robinson Kurpius, S.E., & Roth-Roemer, S. (Eds.) (1998). *The emerging role of counseling psychology in health care*. New York: W.W. Norton & Co.
- Centers for Disease Control and Prevention. (2011). *Infertility FAQ's*. Retrieved from Centers for Disease Control and Prevention, Division of Reproductive Health, National Center for Chronic Disease Prevention and Health Promotion web site: <u>http://www.cdc.gov/reproductivehealth/Infertility/index.htm</u>
- Centers for Medicare and Medicaid Services. (2013). *Health Homes*. Retrieved from Medicaid website: <u>http://www.medicaid.gov/Medicaid-CHIP-Program-Information/By-Topics/Long-Term-Services-and-Support/Integrating-Care/Health-Homes/Health-Homes.html</u>
- Cherniss, C. (1995). Beyond burnout: Helping teachers, nurses, therapists and lawyers recover from stress and disillusionment. New York: Routledge.
- Covington, S.N. (2006). Infertility counseling in practice: A collaborative reproductive healthcare model. In Covington, S.N. & Hammer Burns, L. (Eds.) *Infertility counseling: A comprehensive handbook for clinicians*. (2<sup>nd</sup> ed.) (pp. 493-507). New York: Cambridge University Press.
- Covington, S.N. (2005). Miscarriage and stillbirth. In Rosen, A. & Rosen, J. (Eds.), Frozen dreams: Psychodynamic dimensions of infertility and assisted reproduction (pp. 197-218). Hillsdale, New Jersey: The Analytic Press.
- Covington, S.N. (1995). The role of the mental health professional in reproductive medicine. *Fertility and Sterility*, *64(5)*, 895-897.

- Covington, S.N. & Hammer Burns, L. (2006a). Appendix 1: Qualification guidelines for mental health professionals in reproductive medicine. In Covington, S.N. & Hammer Burns, L. (Eds.) *Infertility counseling: A comprehensive handbook for clinicians*. (2<sup>nd</sup> ed.) (pp. 559-560). New York: Cambridge University Press.
- Covington, S. N. & Hammer Burns, L. (2006). Psychology of infertility. In Covington, S.N. & Hammer Burns, L. (Eds.) *Infertility counseling: A comprehensive handbook for clinicians.* (2<sup>nd</sup> ed.) (pp. 1-19). New York: Cambridge University Press.
- Covington, S. & Marosek, K. (1999). Personal infertility experience among nurses and mental health professionals working in reproductive medicine. Presented at meeting of American Society for Reproductive Medicine, September, Toronto.
- Dalton, J.H., Elias, M.J., & Wandersman, A. (2007). Community psychology: Linking individuals and communities. (2<sup>nd</sup> ed.) (pp. 99-100). California: Thomson Wadsworth.
- Domar, A.D., Rooney, K.L., Wiegand, B., Orav, E.J., Alper, M.M., Berger, B.M., & Nikolavski, J. (2011). Impact of a group mind/body intervention on pregnancy rates in IVF patients. *Fertility and Sterlity*, *95(7)*, 2269-2273.
- Domar, A.D., Clapp, D., Slawsby, E.A., Dusek, J., Kessel, B., & Freizinger, M. (2000). The impact of group psychological interventions on pregnancy rates in infertile women. *Fertility and Sterility*, 73(4), 805-811.
- Domar, A., Zuttermeister, P., & Friedman, R. (1993). The psychological impact of infertility: A comparison with patients with other medical conditions. *Journal of Psychosomatic Obstetric Gynecology*, *14*, 45-52.
- Farber, B.A., Manevich, I., Metzger, J. & Saypol, E. (2005). Choosing psychotherapy as a career: Why did we cross that road? *Journal of Clinical Psychology/In Session*, 61(8), 1009-1031.
- Fenster, S., Phillips, S.B., & Rapoport, E.R.G. (1994). *The therapists' pregnancy: Intrusion in the analytic space*. New York: Routledge.
- Freeman, N. (2005). When the therapist is infertile. In Rosen, A. & Rosen, J. (Eds.), Frozen dreams: Psychodynamic dimensions of infertility and assisted reproduction (pp. 50-68). Hillsdale, New Jersey: The Analytic Press.
- Haas, L.J. (Ed.) (2004). *Handbook of primary care psychology*. New York: Oxford University Press.

- Haase, J.M. & Blyth, E. (2006). Appendix 2: International comparison of standards/guidelines for infertility counselors. In Covington, S.N. & Hammer Burns, L. (Eds.) *Infertility counseling: A comprehensive handbook for clinicians*. (2<sup>nd</sup> ed.) (pp. 561-562). New York: Cambridge University Press.
- Hoffman, I.Z. (1983). The patient as interpreter of the analyst's experience. *Contemporary Psychoanalysis, 19,* 389-422.
- Holley, S.R., Passoni, M.R., Nachtigall, R.D., Bleil, M.E., Adler, N.E., & Pasch, L.A. (2012). Rates of major depression following IVF failure. *Fertility and Sterility*, 98(3), Supplement, S234.
- Jackson, M. (2005). The nurse's perspective in a reproductive medicine program. In Rosen, A. & Rosen, J. (Eds.), Frozen dreams: Psychodynamic dimensions of infertility and assisted reproduction (pp. 249-264). Hillsdale, New Jersey: The Analytic Press.
- Jaffe, J. & Diamond, M.O. (2011). *Reproductive trauma: Psychotherapy with infertility and pregnancy loss clients*. Washington: American Psychological Association.
- Kainz, K. (2002). Barriers and enhancements to physician-psychologist collaboration. *Professional Psychology: Research and Practice, 33(2),* 169-175.
- Kathol, R.G., Butler, M., McAlpine, D.D., & Kane, R.L. (2010). Barriers to physical and mental condition integrated service delivery. *Psychosomatic Medicine*, *72*, 511-518.
- Kvale, S. (1996). *Interviews: An Introduction to qualitative research interviewing*. California: Sage Publications.
- Maxwell, J.A. (2005). *Qualitative research design*. (2<sup>nd</sup> ed.) California: Sage Publications, Inc.
- McCracken, G. (1988). The long interview. California: Sage Publications, Inc.
- Messer, S.B. (1992). A critical examination of belief structures in integrative and eclectic psychotherapy. In J. C. Norcross and M.R. Goldfried (Eds.), *Handbook of psychotherapy integration* (pp. 130-165). New York: Basic Books.
- National Institute of Mental Health. (2013). *Major Depressive Disorder Among Adults*. Retrieved from National Institute of Mental Health website: http://www.nimh.nih.gov/statistics/1mdd\_adult.shtml
- Orber, L. (1989). The impact of a therapist's pregnancy on the therapeutic process. *Issues in Ego Psychology*, *12(2)*, 129-134.

- Pasch, L., Gregorich, S., Ouimette, A., Wing, H., Katz, P. & Adler, N. (2005). Psychological outcomes for women after assisted reproductive technology treatment. *Fertility and Sterility*, 84, Supplement 1, S23-S24.
- Pasch, L.A., Holley, S.R., Bleil, M.E., Shehab, D., Nachtigall, R.D., & Katz, P.P. (2012). Are depressed infertility patients offered and do they receive mental health services? *Fertility and Sterility*, 98(3), Supplement, S44-S45.
- Pasch, L.A., Gregorich, S.E., Katz, P.K., Millstein, S.G., Nachtigall, R.D., Bleil, M.E., & Adler, N.E. (2012). Psychological distress and in vitro fertilization outcome. *Fertility and Sterility*, *98(2)*, 459-464.
- Rosen, A. & Rosen, J. (Eds.) (2005). Frozen dreams: Psychodynamic dimensions of infertility and assisted reproduction. Hillsdale, New Jersey: The Analytic Press.
- Rosset, C.M., Jurado, R.A., Rio, C.J., & Sanchez, Y.G. (2009). Reproductive psychology: The need for a psychologist in human reproductive units. *Clinica y Salud*, *20(1)*, 79-90.
- Rosset, C.M. (2008). Infertility and reproductive psychology. *Papeles del Psicologo*, 29(2), 154-157.
- Smith, L.R. (2006). "A qualitative exploration of the relationship between psychological and medicine in the area of infertility treatment for women." Ph.D. dissertation, California School of Professional Psychology.
- Verhaak, C. & Hammer Burns, L. (2006). Behavioral medicine approaches to infertility counseling. In Covington, S.N. & Hammer Burns, L. (Eds.) *Infertility counseling: A comprehensive handbook for clinicians*. (2<sup>nd</sup> ed.) (pp. 169-195). New York: Cambridge University Press.
- Walker, I., & Broderick, P. (1999). The psychology of assisted reproduction—or psychology assisting its reproduction? *Australian Psychologist*, *34*, 38-44.

### APPENDIX A

## Informed Consent for Study Participants

I, \_\_\_\_\_\_, consent to fill out a demographic questionnaire and be interviewed in order to contribute to a research study on the experiences of psychologists working in reproductive medicine. I agree to speak with the interviewer for approximately 60 to 90 minutes in order to answer questions regarding my experience as a psychologist. I understand that there will be approximately 8 to 12 participants in this study.

I understand that my participation in this study is entirely voluntary and that I have the right to refuse to answer any question, answer questions generally rather than personally specifically, or to withdraw from the study at any time. Additionally, I understand that the interview will be audio recorded and that I may ask for recording to be stopped at any time. I am aware that a risk of participating in this study is that I may experience emotional discomfort while thinking and talking about the issues involved in this study. I understand that if I do experience emotional discomfort, I may abstain from answering a question, answer a question broadly, terminate the interview and/or withdraw from this study.

I also understand that all conversations between myself and the interviewer are strictly confidential. I give permission for the interview to be audiotaped and then to be transcribed. The purpose of the audiotaping is so that the researcher may examine themes and ideas generated by the participants. I understand that these recordings will be deidentified and that they will be destroyed at the end of the research period. I understand that all names and identifying information will be deleted from the hard copy of the interview and that transcripts may be reviewed by members of the dissertation committee and included in the final dissertation report or other later publications or presentations. This form and my identity will be kept strictly confidential and will be stored separately from any other information I provide.

According to the Rutgers University Institutional Review Board regulations, all research records, including documents signed during the interview and transcripts, will be maintained for three years after the completion of the research. At that time, paper documents will be shredded and electronic files will be deleted from any disks, hard drives or electronic trash bins applicable. If, after the three year period, the researcher chooses to use the data, i.e. research transcripts, for further presentation or publication, all aforementioned procedures related to security and confidentiality will be strictly adhered to. All identifying information will be de-identified and all data will be destroyed immediately following presentation or publication.

I understand that my participation in this study may help to improve the understanding of psychologists' unique roles in reproductive medicine. My participation may positively impact the training of health care providers as well as patients and families involved in reproductive medicine treatment. I have been informed that I am entitled to a report of the outcomes of this project, and that if I am interested, the Principal Investigator would be glad to summarize the findings or give me a copy of the final dissertation. I understand that I can contact the Principal Investigator/interviewer listed below if I have any questions regarding my participation in this study:

Shara J. Marrero, Psy.M. 1 Mimosa Ct. Princeton, NJ 08540 Tel: (609) 731-4831 E-mail: <u>smarrero.rutgers@gmail.com</u>

I have been informed that if I have any questions about my rights as a research participant, I may contact the Sponsored Programs Administrator at Rutgers University: Michelle Gibel, CIM, IRB Administrator Rutgers University Institutional Review Board for the Protection of Human Subjects Office of Research and Sponsored Programs ASB III - 2nd Floor, 3 Rutgers Plaza New Brunswick, NJ 08901 Tel: 848-932-0150 E-mail: gibel@grants.rutgers.edu

I have read and understood the contents of this consent form. I agree to participate in this study, and so indicate by signing this form below. Two copies of this form are provided.

I will keep a copy of this consent form for my files. The other copy, which I have signed, is

to be returned with the demographic questionnaire.

Signature (Participant)

Date

Signature (Principal Investigator)

Date

## APPENDIX B

# DEMOGRAPHIC QUESTIONNAIRE

Participant #: \_\_\_\_\_

The following demographic information will be used solely for research purposes.

Gender: \_\_\_\_\_ Age: \_\_\_\_\_

Race (White/Caucasian, Black/African-American, Asian, Native American, Pacific Islander, Other- describe):

Ethnicity (Hispanic/Latino, non-Hispanic/Latino, Other- describe):

Professional degree(s) (Ph.D., Psy.D., Ed.D.) and certifications:

Membership in professional organizations:

# Years since doctoral licensure: \_\_\_\_\_ City: \_\_\_\_\_

Areas of expertise within reproductive medicine:

Approximately how many **hours per week** do you typically spend engaged in the following professional activities?

\_\_\_\_\_ Psychotherapy (e.g. psychotherapy for at least twelve sessions, long-term psychotherapy)

Counseling (e.g. short-term clinical interventions, psycho-education, coping skills training)

[For psychotherapy and counseling, please **check** the applicable groups of patients]:

Individuals Groups Couples Other (describe):

Psychological assessment, e.g. clinical interviews

- \_\_\_\_\_ Psychometric testing, e.g. MMPI, projective testing, Beck Depression Inventory-II
- \_\_\_\_\_ Research
- \_\_\_\_\_ Teaching
- \_\_\_\_ Consultation
- \_\_\_\_ Program Evaluation

Supervision Mentoring Other (please describe and assign hours/week):

Thank you for your participation.

### APPENDIX C

## SEMI-STRUCTURED INTERVIEW

Hello. I'm Shara Marrero, a doctoral candidate in clinical psychology at the Graduate School of Applied and Professional Psychology at Rutgers University. I would like to thank you for agreeing to be interviewed for this dissertation. The primary aim of this study is to explore the personal and emotional experiences of psychologists working in reproductive medicine. I am interested to identify the unique professional skills that psychologists bring to this interdisciplinary work. By sharing your experience, you will help physicians, nurses, technicians, administrators, other mental health practitioners, and families gain awareness of psychologists' contributions to interdisciplinary work in a medical field. This process also may facilitate greater sensitivity and attunement towards psychologists' challenging experiences and professional needs.

Before we begin, I would like to tell you how I became interested this field. My primary area of interest is women's mental health, including issues related to reproduction, sexuality, motherhood, work-family balance, relationships and gender identity. Before beginning graduate school, I worked as a Clinical Research Coordinator in a laboratory at Columbia University Medical Center. I organized and ran longitudinal clinical research studies on the impact of maternal psychopathology, stress, and the use of psychotropic medication on infant development. Through these projects, I worked with pregnant participants ages 14 to 42. It was in this role that my interests in reproductive and lifespan issues were solidified. Over the past few years, I have become increasingly interested in issues related to infertility, as well as in the development and increased utilization of assisted reproductive technologies. A professional goal of mine is to cultivate a specialization in working with individuals and families on issues related to infertility and reproduction. This project is one step for me toward that goal.

Now, I would like to tell you what to expect in the interview. I will be asking you open-ended questions about your experience working in the field of reproductive medicine. This interview should take approximately one hour to an hour and a half. If at any time you become uncomfortable while thinking about or responding to a question, feel free not to answer the question. Or, you may generalize your response instead of stating something specific about your personal experience.

Before I turn on the digital recorder, do you have any questions or concerns?

# 1. Please describe your professional role(s) as a psychologist working in reproductive medicine.

(Optional probes: What kind of work do you do? What is the skill set that you bring to your work? Do you conduct psychotherapy and infertility counseling, psychological assessment, and/or research, or provide psycho-education to patients? Do you teach, serve as a consultant, or supervise or mentor other clinicians or students? Are you involved in an administrative or directive role? If you have multiple professional roles, how much time do you devote to each role per week? Is one role most prominent in your professional identity? Do these roles interact in any way, and if so, how? Do professional organizations or committees play an important part in your career and professional identity?)

2. Please describe the setting(s) in which you work.

(Optional probes: Do you work in a hospital, clinic, or academic setting? Is the setting public or private? Do you work for an organization? Do you work in private practice, individually or in a group practice? Do you consult with medical practices directly or work independently based on referrals?)

- *3. Do you currently work part-time or full-time in reproductive medicine? How would you characterize your roles?*
- 4. How many years have you worked as a psychologist in this field?

(Optional probes: Has your experience changed over the years? Are you an early, middle, or later career psychologist? How has this professional developmental stage affected your work? Have you experienced burnout? How do you cope with the demands of your job?)

5. How did you become involved in reproductive medicine?

(Optional probes: If you were influenced to enter the field by your own experience with reproductive problems, either your own or that of someone close to you, how has this experience affected the work? If you have not had related personal experience, how do you think this factor affects your work? How do you approach issues related to self-care, your own emotional health, and personal boundaries in conducting your work?)

6. Does the type of work you do vary from what you might have imagined you would be doing when you were in training?

(Optional probes: If there are differences between your training and current responsibilities, how do you reconcile these differences? What responsibilities did you anticipate? What skills does your current position demand that you may not have anticipated?)

- 7. How do you conceptualize the relationship between psychology and medicine? How do you understand this interdisciplinary relationship as it relates to reproductive medicine? Has it changed over the course of your career?
- 8. Describe your theoretical orientation. How has this way of thinking influenced your work?

(Optional probes: Do you identify primarily as psychoanalytically-oriented, cognitivebehavioral, humanistic, or another orientation? Within this orientation, do you identify with a sub-orientation, e.g. relational psychoanalysis within psychoanalytic theory, or dialecticalbehavior therapy within cognitive-behavioral therapy? Do you feel that you integrate theoretical ideas in conducting your work? Does your way of thinking about people and their problems change depending on what role you are in?)

- 9. What are the top three most rewarding aspects of your work?
- 10. What is most challenging about conducting your work? Are there any other challenges you think are important to mention?

(Optional probes: What is most emotionally challenging? What may be intellectually, academically, logistically, ethically, legally or financially difficult about working in this field?)

## 11. What is it like working with other professionals in this field?

(Optional probes: With whom do you work on a regular basis? If you work in an interdisciplinary way, what has your experience been like working with physicians, nurses, technicians, administrators, and other mental health practitioners? Who has been supportive to you? Who has not been supportive? What is the organizational culture like where you work most of your hours? If you spend relatively equal amounts of time in various settings, does your experience differ from one setting to another?)

- 12. What do you think is unique about your role as a psychologist in reproductive medicine; that is, what do psychologists bring "to the table"? How has your training as a psychologist influenced your work?
- 13. What do you think is most important for the professionals and families involved in this field to know about psychologists' roles and experiences? In what ways would you feel best supported in your role(s)?
- 14. Please describe as honestly as you can what the process of participating in this interview has been like for you.

#### APPENDIX D

# RECRUITMENT NOTICE

#### Invitation to Participants

Participate in an exciting new study on psychology and reproductive medicine!

If you are a doctoral-level psychologist with professional expertise in reproductive medicine, you may be eligible to participate in a research study on the intersection of psychology and reproductive medicine. I am interested in studying the professional experiences of psychologists who work in reproductive medicine, including, but not limited to conducting psychotherapy, counseling, psycho-education, research, consultation, and assessment. This research study will serve as my doctoral dissertation in clinical psychology at the Graduate School of Applied and Professional Psychology, Rutgers, the State University of New Jersey. Confidentiality will be strictly observed, and participants will be encouraged not to disclose any information they are not comfortable sharing.

To participate, you will complete one short questionnaire and an interview that will last approximately 60 to 90 minutes. An effort will be made to interview participants at a time and location convenient to them. No deception will be used in this study.

If you would like to participate, please contact Shara Marrero, Psy.M., by phone at (609) 731-4831, or by e-mail at <u>smarrero.rutgers@gmail.com</u> for more information.

Thank you for your interest.

This study is approved for recruitment by the Rutgers University Institutional Review Board for 10/25/11-10/24/12.