Monogamy and Nonmonogamy: Evolutionary Considerations and Treatment Challenges

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ABSTRACT

Introduction: Few topics generate such controversy and emotional reactivity as the nature of human mating behavior. Unfortunately, and potentially to the detriment of good patient care, sexual medicine practitioners have largely avoided this matter. An understanding of the scientific literature can empower practitioners to more effectively confront the inevitable monogamy and nonmonogamy challenges present in research and clinical practice.

Aim: To review and summarize relevant scientific literature as a context to evaluate the more common myths and misunderstanding relating to the practice of monogamy and nonmonogamy in humans. This review also is intended to promote a discussion of the ways human mating strategies may impact sexual function and dysfunction for the individual and couple.

Methods: A review of English written peer-reviewed evolutionary, anthropological, neuropsychiatric, zoological research, and other scholarly texts was conducted. Work published between 2000 and 2016 concentrating on evolutionary theory, long- and short-term mating strategies in primates and most specifically in humans, and consensual nonmonogamy was highlighted.

Main Outcome Measures: Main outcomes included a brief explanation of evolutionary theory and a review of relevant literature regarding long- and short-term mating behaviors and consensual nonmonogamy.

Results: Serial sexual and social monogamy is the norm for humans. Across time and cultures, humans have adapted both long- and short-term mating strategies that are used flexibly, and sometimes simultaneously, based on unique personal, social, and environmental circumstances.

Conclusion: Human mating behavior is individualistic, the result of numerous biopsychosocial influences. The clinician cannot assume that an individual presenting as a patient maintains a monogamy-valued view of his or her intimate relationship. Patients may experience conflict between the cultural monogamous ideal and their actual sexual behaviors. This conflict may be critical in understanding a patient's sexual concerns and in treatment planning. Awareness of these issues will aid the practitioner in sexual medicine.

Key Words: Monogamy; Nonmonogamy; Consensual Nonmonogamy; Evolutionary Theory; Human Mating Strategies; Infidelity

INTRODUCTION

Few topics generate such controversy and emotional reactivity as the nature of human mating behavior. Unfortunately, and potentially to the detriment of comprehensive patient care, sexual medicine practitioners have largely avoided this matter. This silence is understandable, as the "monogamy dilemma" presents multiple and complex personal, moral, ethical, religious, scientific, and treatment challenges. Furthermore, concerns with mating behavior don't lend themselves neatly to standardized medical intervention.

Infidelity as defined as sexual interactions with someone other than a primary partner is common among married and cohabiting couples, with estimates ranging from 13.3% to 37.5% of men and women in their current relationship.[1] The impact of infidelity on patients' sexual experience in readily recognized. However, adultery is merely one consequence of mating choice. In practice, patients' perceptions of their ideal and actual mating behavior are nuanced and pertinent to their sexual experience. As sexual freedoms and opportunities broaden in Western cultures, practitioners are increasingly challenged to incorporate the

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impact of mating behavior on the conceptualization and treatment of sexual concerns and dysfunctions.[2] The aim of this article is to review the relevant scientific literature regarding the practice of monogamy and nonmonogamy in primates generally and humans in particular, to clarify the more common myths and misunderstandings relating to the practice of consensual nonmonogamy, to recognize that a patient's practice of monogamy or nonmonogamy likely impacts his or her sexual concerns and function, and to offer clinical guidance for sensitively addressing these issues in clinical practice.

The research literature regarding the practices of monogamy and nonmonogamy is fraught with challenges.[1] For example, research participants may be reluctant to acknowledge behavior that is socially marginalized; individuals who are willing to self-disclose personal information via specific formats such as online questionnaires may not be normative of the population being studied. It is challenging for researchers to obtain a random sample when surveying particularly sensitive and personal information. Furthermore, researchers' and participants' definitions of monogamy and infidelity vary from study to study, making broad conclusions problematic.

The concept of monogamy is best conceptualized by distinguishing between sexual monogamy and social monogamy. Sexual monogamy denotes an exclusive sexual relationship between two individuals, while social monogamy represents socially recognized pair bonding. Social monogamy and sexual monogamy can exist in conjunction or independently. Social monogamy without sexual monogamy is common, as reflected in the rates of affairs and consensual non-monogamous committed relationships.[3] Sexual monogamy without social monogamy is less common, an example being a single female having an exclusive sexual relationship with a married man. Serial sexual and social monogamy is the norm in industrialized societies today. This fact is consistent across time and cultures.[4] Even in preindustrialized cultures that largely promoted polygamy, most males remained socially monogamous because of limited access to females.

Evolutionary Theory

Conceptualizing human mating behavior from a scientific perspective is indeed a challenge, requiring the separation of scientific knowledge from moral, ethical, and religious concerns, as well as personal experience and opinion. Placing mating behavior in the context of evolutionary theory facilitates this process. What follows is a rudimentary and simplified explanation of evolutionary theory. The reader is referred elsewhere for a more comprehensive and detailed review.[5,6]

Contemporary humans are direct descendants of the great apes, sharing an astounding 99% of our genetic code with these ancestors. The evolutionary understanding of human mating behavior was proposed by Charles Darwin in 1859.[7] Unlike his original explanation—that the goal of mating behavior was species survival—modern evolutionary theory more precisely proposes that reproduction ensures DNA transmission, or more accurately, DNA survival.[8] This process ultimately serves genes, as opposed to the organism itself. Because biological and environmental forces are constantly in flux, species transform in response to the environment to achieve this goal. These modifications, or "adaptations" offer important clues to understanding the origins of modern human mating behavior. Biological and behavioral modifications that facilitate DNA transfer tend to be perpetuated genetically, whereas biological and behavioral modifications that impede DNA transmission are largely selected out of a population over time. No species can adapt genetically to the present. Species can only adapt to the past, a process accomplished as offspring become increasingly suited to the reproductive conditions of their ancestors.[6] Thus, the mating strategies of modern humans typify successful mating strategies of early hominids.

Types of Human Mating Strategies

Primate populations consistently favor 3 primary mating strategies: short-term, long-term, and polygamy. Long-term social and sexual monogamy, as promoted in Western cultures today, is rare in the animal kingdom. Approximately 3% of mammals are considered socially and sexually monogamous.[9] Even species once thought to mate for life are now known to engage in at least occasional covert extra-pair mating. For example, birds were largely considered sexually and socially monogamous, but genetic testing reveals that only about 10% of socially monogamous birds are sexually monogamous.[10] Because long-term mating strategies require more intensive parental investment, and thus ultimately a decrease in fecundity, species tend to favor such strategies only when offspring require the efforts of 2 parents to survive into relative maturity.[11] In contrast, short—term mating strategies are typically favored when offspring achieve maturity comparatively soon after birth, thus negating the need for coparenting. A single, "fundamental" mating strategy for humans remains elusive because we are direct descendants of several differing species of great apes, each demonstrating distinct mating strategies.[12] Specifically, chimps evidence a polygamous strategy, with a single alpha male impregnating his female harem. Male and female bonobos, in contrast, are sexually and socially non-monogamous. Humans have biological similarities with both these primate species, and it is thus suggested that both strategies are evolutionarily adaptive for humans.[13,14]

Review of the Literature

A variety of disciplines contribute to the research literature on primate pair bonding and monogamy, including anthropologists, zoologists, biologists, and mental health professionals. Issues explored here include the evolutionary origins of human social and sexual relationships, whether the paradigm of monogamy is solely a cultural construct, a comparison and contrast of modern monogamous and nonmonogamous sexual

relationships, as well as the characteristics and traits of people who openly or secretively engage in nonmonogamous sexual relationships today.

The Evolution of Human Social and Sexual Relationships

A debate remains as to whether monogamy is "natural" in human primates.[15] Some assume that long-term monogamy is the "healthy" mating strategy for people in committed relationships, and identify those who practice some version of nonmonogamy as emotionally damaged.[16] Alternately, some individuals seek to demonstrate that humans are naturally promiscuous, favoring only short-term mating strategies.[17] Universally accepted definitions of short- vs long-term mating strategies remain elusive. However, the use of short-term strategies does not imply promiscuity, nor does a long-term strategy imply lifetime social and sexual monogamy. In fact, it has been suggested that a typical long-term pair bond lasts approximately 3 to 4 years.[18]

Individuals choose sexual strategies based on their unique personal, relationship, environmental, and cultural influences. Long-term pair bonds are indeed common and desirable to most men and women in Westernized cultures today.[19] Similarly, short-term mating, whether within or outside of a long-term partnership, is common across cultures and throughout history.[20]

Evidence for Long-term Pair Bonding in Humans

In spite of the long-term social and sexual monogamy ideal that is largely held up for humans today, this type of pair bond is rare to nonexistent in the great apes[21] and intermittent for humans in both industrialized and nonindustrialized societies. The majority of preindustrial marriages were socially (not sexually) monogamous or polygynous.[22] Nonetheless, the expectation of sexually and socially monogamous long-term pair bonds remains a nearly universal aspiration. The typical marriage vow espousing "till death do us part" attests to this ideal.

Researchers speculate as to the origins and purpose of social monogamy, or pair bonding, in humans. Because very few primates practice social monogamy, it is generally understood that this type of pair bond developed in humans from either an unrestricted mating structure amongst humans traveling in bands, similar to the bonobo, or a polygamous mating arrangement as is evidenced in chimps. A consensus on this issue has not yet been reached.[12] Speculations are based on many variables, such as primate migration patterns, geographic constraints, food availability, features of recovered bones such as canine teeth size and foot structure,[23] and even words in early languages.[24]

A variety of evidence supports several possible conclusions. One, pair bonding may have been adaptive as humans advanced neurobiologically. Historically, shifts in geographic limitations, migration patterns, and food supply may have resulted in humans' progressively more complex neurobiology. As infants were increasingly born with larger and more complex brains, more nourishment[25] and maternal effort[26] were required to ensure survival. A father's presence, at least for several years, enabled a mother to spend less time foraging and more time caring for offspring.[27] Furthermore, it has been suggested that the experience of falling in love may have been an evolutionary adaptation to facilitate pair bonding for the precise reason of successfully raising a child to relative maturity.[28]

Other evidence that long-term pair bonding has been an integral aspect to human evolution relates to modern human social structures.[24] Specifically, the organized social structure and kinship practices of humans today do not appear to be a possible outgrowth of unrestricted, promiscuous sex.[29] That is in part because pair bonding facilitates an orderly social structure,[30] enabling relatively rapid growth, decreased male—male competition for females, and a reduction in crime rates.[31]

Regardless of whether one or both of these explanations is true, long-term pair bonding, or social monogamy, is probably not merely a cultural creation, but rather an evolutionary adaptation enabling complex human development. Of course, pair bonding has probably been embraced because of the many personal, familial, and societal benefits to sexual and social monogamy, such as decreased male aggression, decreased pathogen spread, and paternity assurance.[31]

Evidence for Short-term Mating Strategies in Humans

The evidence for human long-term mating strategies as discussed above does not negate the fact that humans have simultaneously developed short-term mating strategies. There is much evidence supporting the proposition that short-term mating strategies are an evolutionary adaptation shared with other primates.[32,33] Traits that humans share with primates exhibiting short-term mating strategies include moderate sexual dimorphism,[34] moderate secondary sex characteristics,[35] testes size[36] and penis shape[37] adapted for sperm competition, and interest in nonconceptive sex.[38] Because some of these characteristics are indeed moderate, other scientists consider them to be evidence for a predisposition toward polygamous mating strategies.[36] Regardless, they are biological characteristics that tend not to correlate with socially and sexually monogamous long-term mating strategies.

From an evolutionary viewpoint, while the biological benefit of long-term mating has been typically argued to support offspring survival, short-term mating strategies are believed to increase fecundity in distinct ways for men and women.[39] This difference is based on the fact that a woman's fertility is severely limited in comparison to a man's theoretically limitless potential for offspring. A female optimizes her chances for viable offspring when mating with a partner displaying the best genetics available to her. Thus, a woman in a long-term relationship may more likely engage a short-term mating strategy if she perceives her

short-term partner as superior to her primary partner in some way that is important to her.[40] Males, on the other hand, only increase their fecundity with short-term partners. As a result, men are historically less discriminating of short-term mating partners, and more agreeable to such mating strategies.[39]

Evidence for Polygamy as a Mating Strategy

Despite the current widespread acceptance of serial social and sexual monogamy for both men and women, approximately 85% of preindustrial societies sanctioned polygamy as the ideal mating strategy.[31] In such an arrangement, women are held to a socially and sexually monogamous ideal, whereas men are permitted to have multiple wives. From an evolutionary perspective, it is suggested that this strategy was embraced almost universally in preindustrialized cultures because it capitalizes on fecundity and guarantees paternity, thus ensuring a male that he is investing his parenting efforts into his genetic offspring. However, even in polygamous cultures, most men remain socially monogamous because relatively few males demonstrate enough power and resources to maintain multiple wives.[22] Furthermore, most societies do not maintain the abundance of females required to enable individual males to have multiple wives. Polyandry, or a single female consistently mating with several preferred males, is an extraordinary rarity in primates. Evolutionists suggest that this is because having multiple mating partners does not increase a female's fecundity while it simultaneously limits the fecundity of her mating partners. Polygamy is thus optimally adaptive to DNA transmission,[41] while in most situations, polyandry is not.

VARIABLES IMPACTING HUMAN'S PREFERRED MATING STRATEGY

We have established that humans evidence multiple mating strategies, in isolation and concurrently. Research efforts to clarify the complex amalgam of individual, cultural, environmental, and relationship factors impacting an individual's specific mating choices are reviewed below. This list is thorough but not exhaustive. People who exhibit more traditionally masculine traits and people who exhibit more traditionally feminine traits may be differentially impacted by these variables.[42]

Individual Variables Influencing Mating Strategy Preference

Individual characteristics influencing mating choices can include (but are not limited to) personality, sex hormones, mate value, sexual orientation, and genetic variables. Each of these variables engages in a complex interplay with the others, resulting in a unique impact on every individual.

One's sociosexual orientation is defined as a willingness to engage in sex without a commitment. Men and women who score higher in sociosexuality tend to pursue more short-term mating strategies.[43] Studies suggest that certain personality traits correlate with interest in short- or long-term mating strategies. For example, men and women who score high on extraversion, agreeableness, and openness to experience may be more prone to utilize short-term mating strategies, as are people more prone to sensation seeking.[44] Crossculturally, men with higher self-esteem utilize more short-term mating strategies.[45]

Sex hormones play a complex role in mating strategy choice for men and women. In general, men report more short-term partners and more extradyadic involvement than women, although this distinction has continued to diminish over the last few decades.[46] Men with higher testosterone levels seem further prone to engage in short-term mating strategies, either exclusively or in conjunction with a long-term mate.[47] But testosterone has a complicated, nuanced impact on sexual behavior. Research on rhesus monkeys suggests that testosterone increases have a greater impact on the sexual behavior of lower, rather than higher, ranking males.[48] Further clarification of these issues is needed.

Research regarding the impact of hormonal levels on women's mating strategies suggests an increased propensity toward the use of short-term mating strategies during ovulation. Regularly ovulating women have been shown to dress more provocatively when in the fertile phase of their menstrual cycle and to initiate sex more frequently at this time.[49] Similarly, men, but not women, respond differentially to women in the fertile phase of their cycle, in that female nightclub dancers earn higher tips when fertile.[50]

Sex hormone levels also appear to indirectly affect mating strategies by impacting mate value. Specifically, a person's mate value represents their standing on the hierarchy of potential sex partners. Men with higher testosterone levels have been reported to enjoy a higher mate value, and thus are generally considered to be more desirable, especially to fertile women seeking a short-term mating strategy.[51] High testosterone levels are correlated with stronger immune function, an indicator of DNA quality that is assessed unconsciously by potential mates. In research studies, regularly ovulating women have been reported to prefer the scent, voice tone, and facial structure of men with higher testosterone levels as short-term mating partners.[52,53] In a complimentary fashion, men consistently demonstrate a sexual preference for women with higher estrogen levels, as evidenced by age, body fat ratio, hair quality, and voice tone.[54] These variables are believed to be preferred by males because they are indictors of a female's fertility. Mate value also influences a person's chosen mating strategy indirectly by limiting or expanding the number and quality of potential sex partners.[55]

An individual's sexual orientation has been shown to influence choice of mating strategy. Research suggests that homosexual as opposed to heterosexual men tend to engage in more short-term mating strategies.[56] Likewise, lesbians may exhibit a general tendency toward long-term mating in contrast to homosexual relationships or heterosexual relationships.[57]

Genetics and neurobiology appear to play a complex but significant role in mating choices.[58] Research on male prairie

voles suggests that variations in the *V1aR* gene predicts sexual fidelity.[59] Similar research suggests that variation in the vasopressin receptor gene *AVPR1A* correlates with pair bonding in human males[60] and females.[61] Genes in the dopamine system play a role in human infidelity and promiscuity in both men and women.[62] Similarly, long or short variants of a serotonin transporter gene impact marital satisfaction, which likely may play an indirect role in mating choices.[63]

Social and Cultural Variables Influencing Mating Strategy Preference

Social and cultural variables influencing mating strategy choice include religious, cultural, family, and peer group variables. From a cultural perspective, Western cultures are generally more accepting of a variety of mating strategies, particularly for women, than more traditional societies. Chillingly, some cultures today still punish short-term or nontraditional mating strategies by stoning, acid attacks, beatings, rape, or dismemberment. It is undoubtedly the case that this threat of torture and/or death deters men and women from freely choosing their mating behavior. Religions, too, may have been traditionally utilized as a method of controlling mating behavior. In fact, it has been suggested that a primary function of religion was the prevention of short-term mating strategies, construing them as immoral and inappropriate.[18] Men and women who attend religious services more regularly are indeed less apt to engage in short-term mating strategies. Other research indicates that individuals closely connected to extended family may be more likely to avoid short-term mating strategies, at least while engaged in a long-term committed relationship. Furthermore, at least 1 study suggests a correlation between a man's tendency to engage in short-term mating strategies and his father's—but not his mother's—sexual behavior.[64] Peer group is also influential in mating decisions, in that adolescents whose peers engage in more short-term mating strategies are themselves more apt to engage in similar sexual behavior, whereas adults whose peer group is more accepting of divorce are more apt to themselves divorce.[65]

Environmental Variables Impacting Preferred Mating Strategy

Environmental factors add to the complexity of the type of mating strategy an individual chooses.[66] The presence of pathogens appears to impact cultural values relating to mating strategies.[67] Specifically, a higher prevalence of pathogens in the environment, including the presence of sexually transmitted infections,[68] correlates with more restrictive cultural attitudes about short-term mating.

More recent environmental trends that undoubtedly impact mating strategy include technological advancements and increased ease of travel, enable men and women mating opportunities previously unavailable to them. Furthermore, women's empowerment, coupled with hormonal contraception, give women unprecedented opportunities to flexibly engage short-term mating strategies.

Availability of potential partners is an environmental restriction that plays a role in mating strategy choice. When women outnumber men, short-term mating strategies become more common because men have the reproductive advantage. However, when men outnumber women, men become more willing to engage in longer-term mating strategies because women more traditionally prefer this strategy.[69]

Relationship Variables Impacting Preferred Mating Strategy

Relationship variables play a complex role in the decision to engage in an extra-pair partnership. Considering oneself happily married does not preclude the desire for short-term mating.[3] However, both men and women are more apt to seek an outside sexual relationship when sexual, emotional, financial, or other needs remain unmet within their primary relationship.[3] Sexual concerns with a long-term partner, such as low libido or erectile dysfunction, also may play a role in the decision to engage in short-term mating.[70]

In spite of the very real stigma and myths attached to nonordinary relationship structures among lay people[71] and professionals alike,[72] some committed couples in satisfying relationships attempt to resolve monogamy challenges by practicing consensual nonmonogamy.

Consensual Nonmonogamy, Myth vs Reality

It has been estimated that approximately 5% of couples are self-identified as having an alternative commitment contract of some kind.[73] Although these studies have significant limitations, research consistently suggests that consensually nonmonogamous men and women demonstrate similar rates of sexual and relationship satisfaction,[74] marital stability,[75] and emotional disorders as monogamous individuals.[44,76] These results have been replicated in both homosexual and heterosexual men.[77] Consensually nonmonogamous couples demonstrate similar rates of sexually transmitted infections as monogamous couples.[78] Although this may seem counterintuitive, couples who self-identify as monogamous are not necessarily sexually exclusive[79] and may be less likely to use safe sex practices with their primary partner.[80,81]

The more common consensually nonmonogamous identities include swinging and polyamory. "Swingers" maintain social and emotional monogamy but allow for sexual nonmonogamy. Polyamorous couples allow for emotional and sexual nonmonogamy, though they may maintain social monogamy in an effort to avoid discrimination. However, there are numerous ways that consensual nonmonogamous couples define their relationships outside of these traditional models, including "don't ask don't tell" policies or group marriages.[82]

Consensually nonmonogamous couples typically develop rules or guidelines clarifying acceptable extra-pair sexual behaviors. Detailed communication about relationship parameters facilitates

trust, and some research suggests that couples in open relationships may manage jealousy in less potentially destructive ways than those in traditionally monogamous relationships.[83] Interestingly, because monogamous couples are more likely to assume certain relationship parameters without discussion, they more consistently disagree on the boundaries of their monogamy agreements[84] than couples practicing consensual nonmonogamy. Couples with nonmonogamy agreements are extremely individualistic in their relationship parameters,[85] and it is not uncommon for their relationship boundaries to be periodically modified. Of course, nontraditional arrangements involve unique challenges, including parenting concerns, time and financial constraints, and privacy issues with family members and friends.

Mystery That Remains

Despite increasing interest in issues of monogamy and consensual nonmonogamy, questions remain regarding the ways these choices may impact sexual concerns and function. In spite of their many recognized challenges, long-term social and sexual monogamy remain the relationship "gold standard."[86] However, 50% of these relationships do fail, infidelity is widespread, and sexual and relationship satisfaction typically decline over time.[3] As such, research exploring the unique meaning and impact of sexual monogamy on a particular patient's sexual function may provide further insight into the struggles of sexual medicine patients.[87] For example, how might the expectation of sexual monogamy impact sexual arousal and libido? Even patients who maintain sexual exclusivity may be reluctant to volunteer information about their challenges with monogamy because of fears of stigma or being perceived as emotionally disordered. Similarly, although researchers are just beginning to investigate the impact of consensual nonmonogamy on the experience of romantic relationships,[88,89] the impact of nonmonogamous relationship structures and the associated stigma on sexual function and dysfunction remains largely unexplored.[90] For example, how might a nonmonogamy agreement interfere with libido, arousal, or orgasm? In addition, do members of the LGBT communities experience these variables differently? Further research and attention to these matters may assist sexual medicine specialists in more complete assessment and treatment of their patients' sexual concerns.

CLINICAL CONSIDERATIONS

A thorough exploration of treatment approaches to addressing monogamy and nonmonogamy in counseling is beyond the scope of this review. However, several considerations are worth noting. Infidelity is common in otherwise monogamous couples. The practitioner cannot assume that an individual presenting as a patient has a monogamy-valued view of his or her intimate relationship. Holding the belief that all those who practice consensual nonmonogamy or who struggle with sexual monogamy are emotionally flawed or making poor life choices is a disservice to sexual medicine patients.

Assuming an understanding of the impact of sexual monogamy or nonmonogamy for a particular patient may interfere with conceptualization and treatment of sexual dysfunction. When individuals or couples present for treatment, it is critical to determine early in the interview the type of sexuality the patient adheres to, as the clash between their ideal and their actual sexual behaviors may be critical to understanding the issues and developing a treatment plan. A practitioner's calm voice and relaxed demeanor assists in the discussion of potentially sensitive material. A question such as "Some individuals/couples have a more challenging time with monogamy than others. Has this been an issue for you?" may be a nonthreatening way to introduce the topic. The general tone and the aim of the clinician is to normalize as much as possible the behavior without judgment. Offering nonjudgmental, realistic feedback does not equate with condoning a patient's behavior. For example, "Having an affair within a committed monogamous relationship is not uncommon," or, "It may surprise you to know that many if not most individuals engage in sexual relationships that do not match the movie standard of monogamy."

Regardless of whether or not a patient has acted on nonmonogamous sexual longings, patients may avoid such discussions because of feelings of shame or guilt. For some people, fantasizing about someone other than a partner is a shameful act of betrayal. Perceived acts of infidelity can include such diverse scenarios as a man with low sexual desire engaging in repeated nonsexual conversations with and buying gifts for obese webcam models while avoiding intimacy with his wife, or a man's conflicted interest in transsexual porn contributing to erectile dysfunction with his wife. A patient may never disclose such relevant and deeply personal information to his or her practitioner, thus limiting a more complete conceptualization of the patient's experience of monogamy.

Education alone can have a significant impact on a patient's sexual and relationship struggles. Explaining that evolutionary biology influences human mating propensities may help patients gain a greater understanding of their own or their partner's sexual propensities, which may positively impact issues of stigma and/or other sexual concerns. Assurance that some couples recover and even grow in response to infidelity may be soothing.[91] For consensually nonmonogamous couples, acknowledging that research suggests no clear superiority of any particular relationship structure can ease the stigma attached to the challenges inherent in all relationship configurations and help to normalize a patient's sexual experience. Even if an individual or couple chooses not to engage in such a discussion, do not underestimate the impact of your willingness to speak openly and frankly about such potentially sensitive topics.

Couples recovering from infidelity may benefit from a clear understanding of what motivated the betrayal. Conceptualizing the betrayal as a relationship dynamic (as opposed to issues inherent exclusively within one partner) can help clarify the issues requiring attention. The betrayed partner deserves an

honest apology for the infidelity, which may facilitate forgiveness.[92] Research suggests that although discussion of the affair details may be helpful, the betrayed partner may ultimately experience an abundance of details as traumatizing.[93] Sometimes the discovery of an affair increases passion within a romantic relationship. Other couples need time to reconnect intimately, while some never recover a sexual life.

There is a growing literature aimed at practitioners wishing to expand their skill in counseling the consensually nonmonogamous patient.[94–96] Furthermore, there are several self-help texts for consumers that offer guidance in creating a nonmonogamy agreement and negotiating an alternative commitment arrangement.[97–99] In general, couples exploring nonmonogamy contracts are well advised to thoroughly address general relationship concerns before experimenting with extra-dyadic relationships. It is common for nonmonogamous couples to identify their spouse as the "primary partner," and thus negotiate all relationship rules first with this individual. A solid primary relationship base is crucial for managing the challenges inherent in changing relationship structures. Primary partners respond favorably to having ultimate "veto power" with regards to extra-dyadic rules and their partner's relationship choices. This level of power promotes feelings of safety and security within the primary dyad. It may be necessary for a couple to return to a traditional monogamy agreement for a period of time, or to abandon their nonmonogamy agreement completely, if relationship issues become too challenging to resolve. Couples may benefit from making discrete, isolated, well-planned shifts in their relationship boundaries followed by ample opportunity for discussion so as to minimize feeling abruptly or unexpectedly overwhelmed. Multiple and often unanticipated issues become apparent as couples explore new relationship structures, such as with whom they are comfortable disclosing these aspects of their personal lives, how to manage time and financial limitations, the possibility of falling in love unexpectedly, how much each partner wishes to be informed about their partner's sexual experiences, and strategies for managing jealousy.

As with any sensitive therapeutic issue, clinicians must be prepared for transference and countertransference challenges to arise in the course of treatment. As such, when engaging patients about issues of monogamy, it is imperative that practitioners maintain a thorough understanding of their personal biases and predilections. Practitioner self-knowledge is necessary to protect patients from unavoidable countertransference reactions. Peer consultation or supervision may be particularly helpful for sexual medicine practitioners in this regard.

The clinician addressing issues of nonmonogamy within the context of couples therapy may be faced with unique treatment challenges, such as one partner's confidential disclosure of a prior or ongoing affair. The clinician is thus advised to predetermine his or her comfort level and policy regarding secret keeping. Disclosing these policies clearly in the therapy contract informs patients about this issue before beginning treatment.

CONCLUSION

Human mating behavior is individualistic, the result of numerous biopsychosocial influences. Evolutionary biology represents one subset of biological influences within this paradigm, and it suggests that humans are equipped to exhibit flexible mating strategies depending on their personal characteristics and environment. Most men and women demonstrate a propensity toward serial sexual and social monogamy, with some individuals also relying on short-term mating strategies at least on occasion.[100] Infidelity within a committed relationship is not uncommon and often results in significant relationship distress. Many individuals and couples are challenged by the interface of the social "goal" of monogamy with human evolutionary biology supporting more flexible mating strategies. People may struggle with monogamy even while remaining faithful. A subset of couples manages these challenges via consensual nonmonogamy. These couples demonstrate little emotional or relationship differences from monogamous couples outside of their more flexible commitment contracts. Patient education and therapy can help normalize and manage relationship challenges concerning monogamy.

It is likely that all mating strategies have some undetermined impact on the sexual concerns and function of an individual and a couple. Thus, furthering the discussion of these issues may enhance sexual medicine research and practice. Clearly, more research is needed. Ultimately, no mating strategy is devoid of risk or challenge, and all research can become less relevant when considering a unique individual or couple. Practitioners cannot avoid interpreting their patients' sexual behavior through a lens of personal experience.[96] This fact only highlights the benefits for sexual medicine practitioners in maintaining a dialogue about these issues. Open discussion of these sensitive topics better equips practitioners to assist sexual medicine patients with these concerns.

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