Journal of Human Sexuality

The Journal of Human Sexuality is an academic peer-reviewed journal, an official publication of the National Association for Research and Therapy of Homosexuality (NARTH).

Editorial Offices:

The Crane Building, 307 West 200 South—Suite 3001, Salt Lake City, UT 84101
Telephone: 1-888-364-4744; Email: journal@narth.com; Web: http://www.narth.com

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Editor's Comments

The National Association for Research and Therapy of Homosexuality (NARTH) is a professional and scientific organization founded in 1992. Its mission is to promote and ensure a fair reading and responsible reporting of scientific research about the factors that contribute to and/or co-occur with homosexuality and that allow psychological care to be effective for those with unwanted homosexuality. NARTH upholds the rights of individuals with unwanted homosexual attractions to receive competent psychological care and the rights of professionals to offer that care. In 2009 NARTH launched the *Journal of Human Sexuality (JHS)* in service of its mission and as a way of presenting, encouraging, and producing quality clinical and scientific scholarship on these topics.

Volume 1

Volume 1 of *JHS* reviewed more than a century of clinical and scientific evidence in an attempt to answer several questions: Whether psychological care for unwanted homosexual feelings and behaviors has been shown to be helpful and/or harmful, and whether the risk for medical, psychological, and relational difficulties associated with homosexual behaviors and lifestyles has been shown to be significantly greater than that associated with heterosexual behaviors and lifestyles.

A summary of the results of Volume 1 may be viewed online at http://www.narth.com/docs/journalsummary.html.

Volume 2

This second volume of *JHS* adopts a more traditional journal format and includes papers from a variety of authors, as well as several book reviews. Some of the articles were invited, others were submitted in response to a call for papers, and still others resulted from past convention presentations. Contributions for future volumes are

expected to follow a similar pattern. Authors interested in submitting papers for future volumes should contact the editor at 1-888-364-4744 or via email at info@narth.com.

Philip M. Sutton, Ph.D.
Editor, *Journal of Human Sexuality*
National Association for Research and Therapy of Homosexuality (NARTH)

Practice Guidelines for the Treatment

of Unwanted Same-Sex Attractions and Behavior[1]

National Association for Research and Therapy of Homosexuality,

Task Force on Practice Guidelines for the Treatment of

Unwanted Same-Sex Attractions and Behavior[2]

Salt Lake City, Utah

Introduction

Clinical intervention for those who desire to change their unwanted same-sex attractions and behavior is an increasingly controversial subject. Within the sociopolitical environment that currently dominates mental health associations (Cummings, O'Donahue, & Cummings, 2009; Redding, 2001; Wright & Cummings, 2005), individuals who pursue and/or report greater heterosexual functioning through psychotherapy may have their experiences of change marginalized or invalidated.

One possible reason for such marginalization is the increasing number of resolutions, position statements, and practice guidelines produced by professional psychological associations that are related to therapeutic approaches to sexual orientation (e.g., American Psychological Association, 2000, 2009). While these documents contain much helpful information with which clinicians should be familiar, they are nonetheless limited by their lack of diverse professional perspectives (Yarhouse, 2009). Specifically, they often appear to be produced by partisan committees whose members do not generally share the goals, values, or worldviews of many clients who seek assistance in changing unwanted same-sex attractions and associated feelings, fantasies, and behaviors.

This document is intended to provide educational and treatment guidance to clinicians who affirm the right of clients to pursue change of unwanted same-sex behavior and attractions. The specific goals of these guidelines are twofold: (1) to promote professional practice that maximizes positive outcomes and reduces the potential for harm among clients who seek change-oriented intervention for unwanted same-sex attractions and behavior, and (2) to provide information that corrects stereotypes or mischaracterizations of change-oriented intervention and those who seek it.

The very right of clients to pursue change-oriented intervention continues to be questioned within mental health associations (American Psychological Association, 2009; Kaplan et al., 2009; Yarhouse & Throckmorton, 2001, 2002). As a result, the National Association for Research and Therapy of Homosexuality (NARTH) Board and

Scientific Advisory Committee concluded that the development of guidelines by and for clinicians who actually engage in this practice is urgently needed. A practice guideline task force was subsequently formed to develop this document. An initial draft document was sent for review to the NARTH board and the association's professional membership; all feedback was considered and, where deemed beneficial, incorporated into the final version of the practice guidelines.

The term *guidelines* refers to statements that suggest or recommend specific professional behavior, endeavors, or conduct for clinicians. Guidelines differ from standards in that standards are mandatory and may be accompanied by an enforcement mechanism. By contrast, guidelines are aspirational in intent and are intended to facilitate the continued systematic development of the profession and to help assure a high level of professional practice by clinicians. Because practice guidelines are not mandatory, exhaustive, or applicable to every professional and clinical situation, they should be used to supplement accepted principles of psychotherapy, not to replace them.

The guidelines outlined in this document are not intended to serve as a standard of clinical care. Instead, they simply reflect the state of the art in the practice of psychotherapy with same-sex-attracted clients who want to decrease homosexual functioning and/or increase heterosexual functioning. These guidelines are organized into three sections: (a) attitudes toward clients who seek change, (b) treatment considerations, and (c) education.

Attitudes Toward Clients Who Seek Change

Guideline 1. ***Clinicians are encouraged to recognize the complexity and limitations in understanding the etiology of same-sex attractions.***

The standard opinion among behavioral scientists is that the causes of human behavior are multifactorial (Rutter, 2006). There is also general consensus that the

etiology of homosexuality is multifactorial (e.g., Gallagher, McFalls, & Vreeland, 1993; Otis & Skinner, 2004), as are the reasons that cause some to view their same-sex attractions and behaviors as unwanted (cf. Guideline 3).

Over time, there have been vastly different theories about etiology, and a broad variety of approaches to intervention have been used. Theories about the origin of same-sex attraction have often been adopted when a particular approach proved adequate—leading a counselor, therapist, or client to draw a particular conclusion about what "caused" the attraction. The strongest childhood correlate of an adult same-sex orientation is that of clinical Gender Identity Disorder, which has been associated with subsequent homosexuality in 50 percent or more of cases in longitudinal studies (e.g., Zucker & Bradley, 1995). However, the low prevalence of full-fledged Gender Identity Disorder among those who experience same-sex attractions means that this explanation likely applies in only a minority of cases, although subclinical gender identity concerns may be more common.

Sociological research has not shown any one environmental, familial, or social factor as a predominant factor in same-sex attractions for the majority of gay and lesbian people. The exhaustive work of Bell, Weinberg, and Hammersmith (1981) considered all known factors to that date and concluded that each could only be numerically responsible for a small fraction of the causation . This was confirmed by the work of Van Wyk and Geist (1984). Biological research does not show one predominant cause; in fact, most influences have been numerically minor, though many individual correlations have achieved statistical significance (Bogaert, 2007; James, 2006; Lalumiere, Blanchard, & Zucker, 2000; Martin & Nguyen, 2004; Meyer-Bahlburg, Dolezal, Baker, & New, 2008; Rahman, Kumari, & Wilson, 2003). The degree of concordance of sexual orientation in twins is the result of multiple influences, whether known to researchers or not, and twin studies suggest that multiple individual responses predominate to a degree that had not been expected (Bailey, Dunne, & Martin, 2000; Bearman & Bruckner, 2002; Hershberger, 1997; Langstrom, Rahman, Carlstrom, & Lichtenstein, 2008; Santtila et al., 2008).

Therefore, clinicians need to take client histories seriously and not impose on all clients any particular etiological theories, even if those theories have been clearly applicable in other cases. On the other hand, a client may for psychological reasons deny events or processes that to the clinician are obvious causes; in such cases, it may be legitimate to address this with the client. A balance must be struck between taking client histories very seriously and retaining therapeutic objectivity. It is also important to consult peers and to increase understanding by collating influences that clients have found important.

Although no overwhelmingly predominant factors are likely to be found, several broad themes are already known to potentially lead to same-sex attraction and behavior. In no particular order, these include but are not limited to sexual abuse (James, 2005; Wilson & Widom, 2010), relationships with parents (Francis, 2008), relationships with same-sex peers (Bem, 1996), political solidarity (Rosenbluth, 1997; Whisman, 1996), and atypical mental or physical/biological gender characteristics (Zucker & Bradley, 1995).

Discretion is necessary in exploring the etiology of same-sex attractions in any particular client, as is suggested by the fact that leading mental health organizations are noncommittal about etiology (American Psychological Association, 2008a). Nevertheless, a broad but unified understanding of these diverse influences might be found in viewing same-sex attractions and behavior as a developmental adaptation to less-than-optimal biological and/or psychosocial environments, possibly in conjunction with a weak and indirect genetic predisposition.[3] Such an adaptation and the resulting same-sex attraction may distress some people either because it violates their values and/or because the subsequent behaviors may place them at risk for mental illness and physical disease (cf. Guidelines 7 and 11).

Given the complexity of this topic, clinicians who work with clients who have unwanted same-sex attractions and behavior must be even more concerned about and committed to contributing data for research, subject to the usual confidentiality

requirements. These contributions would help broaden everyone's understanding of the etiology of same-sex attractions and behaviors.

Guideline 2. ***Clinicians are encouraged to understand how their values, attitudes, and knowledge about homosexuality affect their assessment of and intervention with clients who present with unwanted same-sex attractions and behavior.***

When individuals enter into psychotherapy and express conflicted feelings, thoughts, or values about their same-sex attractions (or any other issues), clinicians are impacted by their own values and biases as they engage these clients. A clinician's values and biases help determine the theories, techniques, and attitudes used to help these clients explore their presenting issues (Jones, 1994; Meehl, 1993; Midgley, 1992; O'Donohue, 1989; Redding, 2001).

Professional mental health associations have historically recognized this principle in their ethical guidelines, which call on clinicians to be aware of their own belief systems, values, needs, and limitations and how these factors affect their work (e.g., American Association of Marriage and Family Therapy, 2001; American Psychological Association, 2002). More recently, clinicians have been encouraged to exercise reasonable judgment and "take precautions to ensure that their potential biases, the boundaries of their competence, and the limitations of their expertise do not lead to or condone unjust practices" (American Psychological Association, 2002, Ethical Principles, Principle D, pp. 1062–1063). Mental health associations have also recognized that sexuality and religiosity are important aspects of personality (American Psychological Association, 2008b)—and clinicians are encouraged to be aware of and respect cultural and individual differences, including those pertaining to religion and sexual orientation, when working with clients for whom these dimensions are particularly salient (American Psychological Association, 2002; cf. Guideline 3).

A client whose presenting problem is a need to clarify conflicted attitudes toward same-sex attractions represents a microcosm of the moral, legal, and psychological

conflicts regarding homosexuality in our society. Clinicians need to be aware that, historically, same-sex attractions and behavior were considered as a moral issue (sin) by theologians and laypersons, as a legal problem (crime) by legislators, and only later as a psychological phenomenon (psychic disturbance) by clinicians and others (Katz, 1976). Same-sex attractions and behaviors were—and to a significantly lesser extent still are—seen or experienced in our culture as moral failures to be judged (Gallup, 1998; Schmalz, 1993); criminal acts to be prosecuted (Posner & Silbaugh, 1996; Rubenstein, 1996); behaviors to be stigmatized and discriminated against (Rubenstein, 1996; Eskridge & Hunter, 1997); and, until 1974, disorders in and of themselves that needed to be treated (American Psychiatric Association, 1972).

The last few decades have brought about significant changes in the moral valuation, legal status, and psychological description of homosexuality. The change in description was reflected when in 1973 the American Psychiatric Association removed homosexuality in and of itself as a pathological condition from the DSM (Diagnostic and Statistical Manual of Mental Disorders). At this time the legitimacy, effectiveness, and ethicality of change-oriented interventions also came into question. This in turn led to most mental health associations asserting that homosexual orientation and/or attractions could never be modified (e.g. American Psychological Association, 2000, 2008a). Within this exclusively gay-affirmative position, the presumed and prescribed optimal outcome of therapy for clients ambivalent about their attractions to the same gender is developing and achieving acceptance of and identification with their sexual desires.

Clinicians who continue to practice change-oriented counseling believe change is possible and available for many highly motivated clients who want to lessen their same-sex attraction, develop and increase their opposite-sex attractions and identification, or achieve stability within an abstinence-based life (Byrd & Nicolosi, 2002; NARTH, 2009).

Other clinicians can identify with both of these positions. When counseling a client with ambivalence about same-sex attractions, these clinicians look at both the goals

of change and the goals of the gay-affirmative stance as possible and ethical without an exclusive value commitment to either one (Throckmorton & Yarhouse, 2006).

As clinicians approach the task of assessment, informed consent, and goal setting, they need to consider the complexities of sexual orientation and its development (cf Guideline 1). Many social scientists share an interactionist perspective that sexual orientation is shaped for most people through the complex interaction of biological, psychological, and social factors (cf. Guideline 1). There is a lack of consensus about how to best measure sexual orientation and what constitutes its central dimensions, be they attractions, behavior, fantasies, identification, or some combination of these elements (Kinnish, Strassberg, & Turner, 2005; Moradi, Mohr, Worthington, & Fassinger, 2009; Sell, 1997; Throckmorton & Yarhouse, 2006). This leads to further problems with estimating prevalence rates and measuring the reliability of sexual orientation (Byne, 1995; Laumann, Gagnon, Michael, & Michaels, 1994; Stein, 1999). In addition, after December 1973, when homosexuality in and of itself was no longer categorized as a disorder, research on the possibility of changing unwanted same-sex attractions became much less prevalent in the professional literature (Jones & Yarhouse, 2007).

Along with considering the above, clinicians are encouraged to reflect on some specific potential biases they may encounter when they start exploring a client's issues. Clinicians who have adopted a primarily gay-affirming stance tend to focus on research literature that emphasizes a lack of difference in pathology between individuals with same-sex attractions and the rest of the population—research that attributes differences between the two populations to internalized homophobia and external stressors (Gonsiorek,1991). They may ignore the possible etiological significance of social and developmental factors, such as a higher incidence of childhood sexual abuse, particularly for men (Eskin, Kaynak-Demir, & Demir, 2005; Fields, Malebranche, & Feist-Price, 2008; James, 2005; Stoddard, Dibble, & Fineman, 2009; Tomeo, Templer, Anderson, & Kotler, 2001; Wilson & Widom, 2010). They might also emphasize the

methodological limitations in the research literature that indicate the possible efficacy of change intervention (American Psychological Association, 2009; Gonsiorek, 1991), even though there appears to be no satisfactory measure of sexual orientation (or its change) in the literature (Jones & Yarhouse, 2007; Moradi et al, 2009). They are likely to dismiss the research into psychodynamic and other theories that can be used to support change interventions (American Psychological Association, 2009; Bell et al., 1981) based on methodological limitations—ignoring the fact that the quality of these studies, although not impressive by contemporary standards, was nevertheless "state of the art" and good enough to merit publication in respected professional journals. Moreover, the early research that supported the possibility of change is comparable to other studies on homosexuality in the literature of the time that are still held in good repute (Jones & Yarhouse, 2007) and referenced uncritically in contemporary discussions about change-oriented treatment (cf. American Psychological Association, 2009), probably because they support a favored sociopolitical point of view.

Furthermore, clinicians with a strong gay-affirming position may tend to emphasize clinical literature that describes examples of harm—such as disappointment in not achieving complete sexual reorientation—in the course of change-oriented therapy and may decide that conducting such therapy is clearly unethical and harmful (Gonsiorek, 2004; Murphy, 1992; Tozer & McClanahan, 1999; Worthington, 2004). They may maintain this view even when clients explicitly say they want to change their unwanted same-sex attractions and/or behavior (Gonsiorek, 2004). These clinicians may believe that clients cannot establish realistic therapeutic goals for themselves nor make a truly voluntary decision to develop their heterosexual potential, assuming that clients want to change only because they have been oppressed and discriminated against by society (Tozer & McClanahan, 1999). They may discount the reality that many clients who want to explore the possibility of change experience significant conflict between their religious beliefs and their same-sex attraction (Beckstead & Morrow*,* 2004; Haldeman, 1994,

2004; Yarhouse & Tan, 2004), and that religious affiliation may be the most stable aspect of a client's identity (Johnson, 1995; Koening, 1993). Some clinicians have even equated agreeing to help someone develop their heterosexual potential as analogous to agreeing to help an anorexic lose weight (Green, 2003). They may tend to espouse the immutability of sexual orientation, basing this conclusion on unsubstantiated biological research—a conclusion that remains premature (Garnets & Peplau, 2001; James, 2005; Stein, 1999; Yarhouse & Throckmorton, 2002).

Biases may impact clinicians on the other side of the issue as well. Clinicians who practice a primarily change-oriented intervention approach to unwanted same-sex attractions may overly interpret the likelihood and extent of probable change, oversimplifying or overselling the process of change according to their preferred (often psychodynamic) theory. They may not take into sufficient account the uniqueness of a particular client's history of same-sex or opposite-sex interest/arousal/behavioral patterns, and they may underestimate the possible therapeutic harm that may result from such oversimplification (Buxton, 2004), such as causing clients to feel misunderstood and misrepresented (Beckstead, 2001; Haldeman, 2002; Shildo & Schroeder, 2002; Shildo, Schroeder, & Drescher, 2001). They may be tempted to ignore the reality that only a minority of clients with unwanted same-sex attractions achieve complete change toward heterosexual capacity and functioning, even though they face enormous social sanctions throughout their lives (Green, 2003).

Change-oriented clinicians might also tend to minimize the research on the effect of social pressures and internalized societal attitudes toward homosexuality as possible factors contributing to a client's symptoms (DiPlacido, 1998; Maylon, 1982; Mays & Cochran, 2001; Meyer & Dean, 1998; Shildo, 1994). They might also minimize research suggesting that homosexual men and women who report lower internalized homophobia generally have fewer related problems (Meyer & Dean, 1998). Some clinicians who practice primarily change-oriented intervention might automatically assume that outside

pressure to move away from unwanted same-sex attractions is congruent with clients' value systems and should be honored, and might as a result neglect a deeper exploration of the issues (Green, 2003; cf. Guideline 8). Some of these clinicians may suggest to clients that change in unwanted same-sex attractions would be potential relief from a pathological condition when it would be more helpful to look at it as a "clinical problem" (Engelhardt, 1996)—especially for clients who are leaning toward integrating a gay identity and who find a focus on pathology unhelpful (Liddle, 1996) or harmful (Shildo & Schroeder, 2002), or for clients who have been made vulnerable by repetitive, traumatic anti-gay experiences (Haldeman, 2002).

There are also biases that affect both gay-affirmative and change-oriented clinicians. Both—especially if they are actively involved in the cultural debate surrounding the moral, legal, and psychological aspects of homosexuality in society—may dismiss the need to refer clients. This may be a risk particularly when, during the goal-setting process, it becomes clear that the value position of the counselor is in clear conflict with the client's goals (Haldeman, 2004; Liszez & Yarhouse, 2005). Clinicians may need to refer if they are unable to identify with religiously based identity outcomes (Throckmorton & Welton, 2005) or with the less sexually monogamous norms of a significant portion of the gay culture (Bepko & Johnson, 2000; Bonello & Cross, 2010; Laumann et al., 1994; Martell & Prince, 2005; Mercer, Hart, Johnson, & Cassell, 2009; Prestage et al., 2008; Shernoff, 1999, 2006; Spitalnick & McNair, 2005). A clinician may also find it objectionable to refer clients to a needed supportive community whose values the clinician does not accept (Yarhouse & Brooke, 2005).

Clinicians who adopt a primarily more flexible position than either gay-affirmative or change-oriented clinicians are less likely to be impacted by these sorts of biases during the initial phase of assessment, informed consent, and goal setting (Throckmorton & Yarhouse, 2006). Yet these therapists may tend to wait too long to encourage a client to move out of contemplative ambivalence, thus losing opportunities

to help a client experiment with new behaviors, attitudes, and adaptations (Buxton, 2004). This could be due to a clinician's own ambivalences toward the possibility of change or to the clinician not being able to fully identify with the sexual value system of the gay or conservative religious subcultures (Bepko & Johnson, 2000; Rosik, 2003a).

Clinicians who do not exclusively offer change-oriented intervention may not fully appreciate the experience of clinicians who do and who often find that effective working alliances can come into play only when the counselor and client both view unwanted same-sex attractions from similar value positions. From this perspective, their more flexible position of addressing the therapeutic needs of both change-seeking and gay-affirmative clients can dilute the power of the alliance and leave the client feeling incompletely understood and incompletely supported (Nicolosi, Byrd, & Potts, 2000; Rosik, 2003a, 2003b). In addition to the above considerations, gay-affirmative and change-oriented clinicians working with adolescents may need to exercise extra caution: at this developmental stage, the experience of sexual identification is more fluid, and adolescents may experience pressure toward resolution as unhelpful (Cates, 2007; McConaghy, 1993; Remafedi, Resnick, Blum, & Harris, 1992; Savin-Williams, 2005; cf. Guideline 9).

Mental health professionals are in conflict on how best to help individuals who enter psychotherapy expressing conflicted feelings, thoughts, or values about their same-sex attractions and behavior. Since conservative and traditional views are presently underrepresented in the mental health profession (Redding, 2001), there is serious risk that a counselor's response will be negative toward a client who is leaning toward change. Because of that, it is important for clinicians to become familiar with a range of therapeutic options for clients who experience religious and sexual identity conflicts, including options that validate a client's decision to develop heterosexual potential (Beckstead & Morrow, 2004; Haldeman, 2004; Rosik, 2003a; Throckmorton & Yarhouse, 2006). It is recommended that clinicians consider these options as part of a reflective, ethical practice.

Guideline 3. ***Clinicians are encouraged to respect the value of clients' religious faith and refrain from making disparaging assumptions about their motivations for pursuing change-oriented interventions.***

Research indicates that the majority of people who present to clinicians with unwanted same-sex attractions are motivated in part by deeply held religious values (Jones & Yarhouse, 2007; Nicolosi et al., 2000; Spitzer, 2003). However, studies consistently report that mental health professionals are less religious than the general population across several dimensions of participation and belief (Bergin & Jensen, 1990; Delaney, Miller, & Bisono, 2007; Neeleman & King, 1993). A lack of familiarity with religious beliefs and values in general—and those of the client in particular—can negatively affect the course and outcome of interventions with clients whose faith motivates the pursuit of change in same-sex behaviors and attractions. Respect for religion as a dimension of diversity within psychology underscores the need for attention to this risk (Benoit, 2005; Buxton, 2004; Yarhouse & Burkett, 2002; Yarhouse & VanOrman, 1999).

Religious motivations should not be immune from scrutiny in psychotherapy, but clinicians need to be extremely cautious about pathologizing religious values that may prompt a client to attempt to modify unwanted same-sex attractions and behavior. A lack of conservative and religious representation among mental health professionals compared to the general population (Delaney et al., 2007; Redding, 2001) suggests a considerable danger of clinicians misinterpreting or invalidating the motives of religious and conservative clients. One way in which that occurs is when religious beliefs that motivate clients to modify their unwanted same-sex attractions are too quickly and uniformly labeled as internalized homophobia (such as Herek, Gillis, & Cogan, 2009). Differences in moral values between therapists, counselors, and their religiously identified clients concerning sexuality can easily become the object of clinical suspicion, with the tacit and inappropriate assumption that the counselor's values are superior to and should override

those of the client (Haidt & Hersh, 2001; Kendler, 1999; Miller, 2001; O'Donahue & Caselles, 2005; Rosik, 2003a, 2003b, 2007a, 2007b).

Clinicians can benefit by examining the role that worldview similarity—particularly with regard to moral epistemology—plays in their attitudes toward clients who ask for help developing their heterosexual potential. For example, five domains of moral concerns have been identified across cultures: 1) concerns for the suffering of others; 2) concerns about unfair treatment, inequality, and justice; 3) concerns related to obligations of group membership (such as religious identification); 4) concerns related to social cohesion and respect for tradition and authority; and 5) concerns related to physical and spiritual purity and the sacred (Graham, Haidt, & Nosek, 2009; Haidt & Graham, 2007, 2009; McAdams et al., 2008). The first two moral domains focus on the individual as the center of moral value, with an aim of protecting the individual directly and teaching respect for individual rights. The other three domains emphasize the value of groups and institutions in binding individuals into roles and duties for the good of society.

The research of Haidt and his colleagues (2001, 2007, 2009) has indicated that conservative people tend to utilize all five of these domains in their moral thinking, while liberal people tend to rely much more on the first two concerns. These differences can lead liberal people to misunderstand the moral concerns of conservative individuals more than conservatives misconstrue the concerns of liberals. Furthermore, the moral concerns of conservative individuals regarding group loyalty, respect for authority and tradition, and purity/sacredness tend to be rejected by liberal individuals (including many mental health professionals)—who, in fact, consider those concerns immoral if they seem to be in conflict with their own emphasis on harm, rights, and justice. Respectful awareness of such differences can promote a positive therapeutic environment for clients who, for religious or other morally motivated reasons, pursue change in their unwanted same-sex attractions and behavior.

Another means of marginalizing religious belief within the general practice of psychology has been to completely separate psychology and religion—to deem religiously motivated psychotherapeutic attempts to change unwanted same-sex attractions and behavior as essentially religious pursuits that have no place in a science-based clinical practice (American Psychological Association, 2009; Silverstein, 2003). This perspective creates a strict demarcation that is not supportable given the enormous overlap between psychology and religion in their philosophical and anthropological areas of inquiry, such as theories of human nature (Auger, 2004; Bain, Kashima, & Haslam, 2006; Jones, 1994; O'Donahue, 1989). This perspective can also represent some degree of philosophical naïveté or professional hubris, since the empirical methods of psychology contain their own "innate" values and are also influenced by the value assumptions of researchers (Fife & Whiting, 2007; Slife, 2006, 2008; Slife & Reber, 2009). These methods are not theologically or philosophically neutral, nor do they enable research to proceed without the application of interpretive biases of some sort—particularly when investigating value-laden subjects such as change-oriented interventions. Conversely, established religious and theological traditions are not bereft of a degree of objective and empirical validation; when they have not become corrupted by power, they have been valid and useful for understanding and directing human behavior for hundreds, if not thousands, of years (Stark, 2005).

A professional stance that endorses dialogue between religion and psychology is to be preferred over one that situates them in opposition to one another in order to place certain religiously motivated therapeutic goals outside the domain of mental health practice (Gregory, Pomerantz, Pettibone, & Segrist, 2008). Clinicians are therefore encouraged to utilize the insights from social science to inform and guide—rather than to obstruct and proscribe—their clinical practice with religiously identified clients who pursue change-oriented intervention.

Guideline 4. ***Clinicians strive to respect the dignity and self-determination of all their clients, including those who seek to change unwanted same-sex attractions and behavior.***

Professional clinicians ascribe to the general ethical principle of individual autonomy and self-determination (e.g., Principle E: Respect for People's Rights and Dignity; American Psychological Association, 2002). Clinicians are encouraged to avoid viewing individuals who seek to change their unwanted same-sex attractions, sexual orientation, or sexual identity as an exception to this general ethical principle. Likewise, professionals strive to view clients as fully capable of pursuing self-determination or able to respond in an autonomous manner to the source of their distress (Byrd, 2008). In harmony with that attitude, clinicians act in an ethical and humane manner and provide a valued service to clients when they respect a client's right to self-determination and autonomy when the client seeks change interventions for unwanted same-sex attractions and behavior (Benoit, 2005).

A focus on self-determination and autonomy does not elevate this ethical consideration above others in addressing the provision of change-oriented interventions (American Psychological Association, 2009). However, this ethical issue is often stressed in the change-oriented literature precisely because it is the ethical guideline most directly impacted by the threat of professional restrictions on such care. Restricting client self-determination to pursue change-oriented intervention on the basis of a lack of empirical efficacy, even if accurate, should in fairness make clinicians stop using many other experimental and unsupported treatment modalities that are currently practiced. Nor does the limiting of client autonomy appear to be warranted by the potential for harm in change-oriented interventions. No harm has been definitively linked to such interventions as a whole (American Psychological Association, 2009), and potential harm can likely be resolved by suitable precautions such as those offered in these guidelines.

Clients enter therapy with values that guide their goals for therapy. Whether religious or personal, such values may lead individuals to seek change interventions

for unwanted same-sex attractions and behavior. In treatment settings, professionals respect the autonomy and right of self-determination of individuals who seek change interventions for unwanted same-sex attractions and behavior, as well as those individuals who do not desire such interventions. Clinicians are encouraged to refrain from persuading clients to select interventions that are contrary to their personal values (American Psychological Association, 2008a; Haldeman, 2004).

Professionals support the principle that individuals are capable of making their own choices in response to same-sex attractions and promote autonomy and self-determination by: (a) acknowledging a client's choice or desire to seek intervention for unwanted same-sex attractions and behavior; (b) exploring why these attractions and behaviors are distressing to the client (Jones & Yarhouse, 2007); (c) addressing the cultural and political pressures surrounding choice in response to same-sex attractions; (d) discussing the available range of professional therapies and resources (Jones & Yarhouse, 2007); (e) providing understandable information on outcome research related to change interventions (NARTH, 2009); and (f) obtaining informed consent for treatment (Rosik, 2003a; Yarhouse, 1998a; cf. Guideline 5).

Value conflicts with the broader culture are more likely to be experienced by clients who opt for gay-affirmative interventions. However, the more sociopolitically liberal and secular worldview of licensed clinicians heightens the probability that value conflicts in the clinical setting are more likely to occur among clients who pursue change-oriented interventions. The clinician's commitment to respecting client autonomy and self-determination may be especially tested when working with people reporting unwanted same-sex attractions and behavior. Clinicians risk violating the client's right to autonomy and self-determination when they attempt to deny a client the opportunity to engage in change interventions, view the client as incapable of making choices among intervention options, or withhold information about a full range of therapeutic choices. Such violations of client rights may risk harm to the client (Byrd, 2008).

Treatment Considerations

Guideline 5. ***At the outset of treatment, clinicians strive to provide clients with information on change-oriented processes and intervention outcomes that is both accurate and sufficient for informed consent.***

Clinicians from all of the mental health professions provide clients with informed consent at the beginning of treatment (e.g., American Psychological Association, 2002, Ethical Standards 3.10 & 10.01; American Association for Marriage and Family Therapy, 2001, Ethical Standard 1.2; National Association of Social Workers, 2000). Ethically, those who serve clients with unwanted same-sex feelings and behaviors—or any psychological, behavioral, or relational concerns—offer accurate information both about the process of change and the kinds and likelihood of changes that are possible.

Adequate informed consent is an important part of therapeutic “beneficence and nonmaleficence” through which clinicians “strive to benefit those with whom they work and take care to do no harm . . . [and] seek to safeguard the welfare and rights of those with whom they interact professionally” (American Psychological Association, 2002, General Principle A, p. 1062). Informed consent also encourages and expresses clinical “competence,” through which clinicians “provide services . . . with populations and in areas only within the boundaries of their competence.” Clinicians inform their clients about the clinical “education, training, supervised experience, consultation, study, or professional experience” that contributed to their competence (American Psychological Association, 2002, Ethical Standard 2.01, p. 1063).

Since 1973, homosexuality itself has no longer been formally considered to be pathological (American Psychiatric Association, 1973; American Psychological Association, 1975). But distress concerning sexual orientation is still a diagnosable, treatable condition under the category *Sexual Disorder Not Otherwise Specified* (American Psychiatric Association, 2000), and some instances of unwanted same-sex

attractions may fall under this category. As even gay-identified scholars have asserted, developmental issues that contribute to a person's distress about her or his sexual orientation are valid topics for research (Morin & Rothblum, 1991).

This also holds true when considering intervention for unwanted same-sex attractions and behavior. Contrary to current attitudes explicit or implicit in the professional and lay media, "regardless of pathology, cultural trends, or current political rhetoric, mental health issues for homosexuals remain clinically significant and, like all others, must be addressed by the clinician with competence" (Monachello, 2006, p. 56). Clinicians who help clients distressed about their same-sex attractions and behavior are being ethically responsible, respecting "the dignity and worth of all people, and the rights of individuals to . . . self-determination" (American Psychological Association, 2002, General Principles, Principle E, p. 1063).

In helping clients resolve unwanted same-sex behavior and attraction, clinicians are mindful that the phenomena of male and female homosexuality and the related concept of "sexual orientation"—the gender(s) of the persons to whom one is sexually and/or affectionately attracted and with whom one experiences love and/or sexual arousal—are not universally defined, fixed, discrete, one-dimensional constructs (Weinrich & Klein, 2002; Worthington & Reynolds, 2009). A person's perceived or self-declared sexual orientation may or may not be consistent with actual sexual behaviors, thoughts, or fantasies (Schneider, Brown, & Glassgold, 2002). Moreover, clients' responses to unwanted same-sex experiences may vary from obsessive anxiety that they—or a dependent family member—may develop same-gender sexual attractions, to feeling but never having acted upon such attractions, to having gratified them in a single, occasional, habitual, or even addictive manner.

Clinicians will assess the nature of their clients' actual experience of unwanted same-sex feelings, thoughts, and behaviors as part of informing the clients of possible treatment outcomes and developing a mutually agreed-upon plan for intervention.

Such assessment will explore the possible presence of many co-occurring medical, psychological, behavioral, and relational difficulties that either contribute to and/or may be consequences of a client's unwanted same-sex attractions or behaviors (cf. Guideline 9). Clinicians also will assess the nature of their clients' spiritual and religious involvement and motivation in order to respect their clients' rights, dignity, and need for self-determination (cf. Guidelines 3 and 4). Appropriate referrals for allied medical, mental, and/or pastoral health care may be an appropriate component of informed consent and goal setting (cf. Guideline 8).

When discussing the possibilities for change, it is important to explain that, as with any intensive course of intervention, achievement of significant change(s) of unwanted same-sex attractions and/or behaviors requires sufficient motivation, hard work, and patience, with no guarantees of "success" (Haldeman, 1991, 1994, 2001). But when discussing the possibilities of successful changes, it is heartening to note that successful intervention has been reported in the clinical and scientific literature for the past 125 years. More than 150 reports spanning the end of the nineteenth century through the beginning of the twenty-first have documented successful change(s) in sexual attractions, thoughts, fantasy, and/or behaviors from same-sex to opposite-sex (Byrd & Nicolosi, 2002; NARTH, 2009; Throckmorton, 2002).

While not an exhaustive list, reports of change range in size from single-client case studies to group studies involving hundreds of clients. The various therapeutic paradigms used have included psychoanalysis (Bieber, Dain, Dince, Drellich, & Grand, 1962; MacIntosh, 1994) and experiential or other psychodynamic approaches (Berger, 1994; Nicolosi, 2009); hypnosis; behavior and cognitive therapies (Bancroft, 1974; Birk, Huddleston, Miller, & Cohler, 1971; Throckmorton, 1998); sex therapies (Masters & Johnson, 1979; Pomeroy, 1972; Schwartz & Masters, 1984); group therapies; religiously mediated interventions (Jones & Yarhouse, 2007); and various combinations of therapies (Karten & Wade, 2010), among others. Non-theory-driven, serendipitous change has also

been reported in response to psychotropic medication and brain injury (Golwyn & Sevlie, 1993; Jawad, Sidebothams, Sequira, & Jamil, 2009). A number of meta-analyses have demonstrated that intended change in feelings and behaviors is a realistic goal for many persons with unwanted attractions to the same sex (Byrd & Nicolosi, 2002; Clippinger, 1974; James, 1978; Jones & Yarhouse, 2000). See NARTH (2009) for a comprehensive list of reports for each paradigm.

While no approach to therapy for any presenting concern—including unwanted same-sex attraction or behavior—has been shown to enable clients to meet all of their therapeutic goals, the clinical and scientific literature to date has shown the potential for change to varying degrees. Many—but not all—clients have either been observed by their therapists or have reported themselves to have experienced desired changes in "sexual orientation" and related presenting concerns (NARTH, 2009).

Clients who report a significant transition and/or who are assessed as having made a significant transition from same-sex to opposite-sex attraction, cognition, fantasy, and behavior not uncommonly re-experience same-sex feelings or thoughts, though at a less intense level than before intervention. Of course, there may be exceptions. Even when clients do not achieve all they had hoped to when beginning therapy, many report satisfaction with what they have achieved (Nicolosi et al., 2000, 2008; Spitzer, 2003), and some clients who describe their therapy experiences as "harmful" may also characterize those experiences as "helpful" (Shildo & Schroeder, 2002). As with therapy in general (Lambert & Ogles, 2004), documented intervention success is often accompanied by some recidivism during or following the treatment of compulsive or addictive sexual and/or other disorders co-occurring with unwanted same-sex attractions (cf. Guidelines 6 and 10).

Critics of the clinical and scientific literature documenting successful therapeutic outcomes—or the lack thereof—accurately point out the absence of truly randomized outcome studies (American Psychological Association, 2009). Another criticism

of the literature is the lack of clear definition of terms such as *sexual orientation, homosexuality, heterosexuality,* and *change.* As noted previously, there has been much less research focusing on the development of and interventions for unwanted same-sex attractions since the American Psychiatric Association's 1973 decision to no longer diagnose homosexuality as a mental disorder

Such criticism does not negate that, for more than a century, clinical and scientific evidence has persistently demonstrated that unwanted same-sex attractions and behaviors are often treatable and that clients who seek intervention are not invariably harmed when receiving intervention. A substantial number of people who have sought help from professionals representing various theoretical paradigms and psychotherapeutic approaches have diminished the frequency and strength of same-sex attractions, reduced or eliminated same-sex behaviors, and enhanced their experience of opposite-gender sexual attractions (Nicolosi et al., 2000; Spitzer, 2003). While some clients may report change in sexual orientation identity only—labeling themselves as ex-gay without an accompanying change in the direction or intensity of sexual attractions (American Psychological Association, 2009)—research does support the occurrence of change in the behaviors, attractions, and fantasies associated with sexual orientation per se (Jones & Yarhouse, 2007; Spitzer, 2003). Since the question of change in sexual orientation identity versus sexual orientation is definitionally complex and does not lend itself to an either/or dichotomy, clinicians are encouraged to be cognizant of this issue without adopting a dogmatic all-or-nothing approach.

Doubt that same-sex attractions and behavior can change has arisen in part because of the desertion of psychological and clinical principles in favor of sociological surveys. This constitutes a significant methodological problem. The traditional psychological treatments arose in a discipline where individual change was monitored and interpreted and taken as an indicator of ways therapy could be improved. Change that was satisfactory to the client was the criterion. However, in a situation (germane to

many interventions) in which a minority of clients experience significant change, some experience minimal change, and some experience no change, the illegitimate sociological average would say the therapy does not work.

To illustrate this point, imagine an intervention that helps only 10 percent of clients, but for that 10 percent the intervention is brilliantly successful. The intervention fails for the other 90 percent. The sociological average of all these cases would indicate that the intervention has no effect at all. That conclusion is false and neglects the traditional prime role of the individual.

It may be that many of those who say change is impossible have been unable to change themselves—so they assume their experience is like that of all who pursue change. This would be invalid reasoning, but it may contribute to attempts by professional organizations to explicitly or implicitly discredit change-oriented interventions or otherwise discourage their use (American Psychological Association, 2009).

Lambert & Ogles (2004) observed that “helping others deal with depression, inadequacy, anxiety, and inner conflicts, as well as helping them form viable relationships and meaningful directions for their lives, can be greatly facilitated in a therapeutic relationship characterized by trust, warmth, understanding, acceptance, kindness and human wisdom” (pp. 180–181). As with therapy for all presenting concerns, giving satisfactory informed consent when beginning to counsel those who want to resolve unwanted same-sex attractions and behavior is not only ethical but also may be expected to facilitate the development of more effective, therapeutic relationships.

Guideline 6. *Clinicians are encouraged to utilize accepted psychological approaches to psychotherapeutic interventions that minimize the risk of harm when applied to clients with unwanted same-sex attractions.*

Every counselor uses psychotherapeutic approaches that may be reasonably expected to offer clients help in dealing with their presenting problems (beneficence) and

to avoid or minimize potential harm (nonmaleficence). Professional clinicians who work with clients to resolve unwanted same-sex attractions and behaviors are trained in one or more of the theoretical approaches and techniques currently practiced in the mental health professions. Clinicians use accepted psychological approaches to help clients deal with common co-presenting problems, including depression, anxiety, shame, unresolved distress originating from family of origin, sexual and emotional abuse, relationship difficulties, lack of assertiveness, and compulsive and addictive habits. Clinicians also seek supervision and additional training as dictated by their clients' needs and professional development (cf. Guideline 11).

It has been suggested by critics that one possible outcome of counseling for unwanted same-sex attraction has been the development of a negative attitude toward homosexuality or homosexuals (e.g., Haldeman, 1991, 1994). This caution about potential harm or criticism of reported harm must be understood in the context of any therapeutic process. Such intervention often leads a client to become more aware of depression, anxiety, and other emotions left over from the recent or distant past. In the short term, as clients are helped to practice sexual or other (such as substance use) sobriety, they may experience an increase in their "feeling" of depression, anxiety, and other problems.

An increase in unpleasant feelings may not be an indication of "harm," but an opportunity to deal with feelings formerly numbed by mood-altering behaviors (such as sexual gratification), substances (such as alcohol or drugs), or other paraphernalia (such as pornography). Clients who terminate any therapy before effectively resolving any underlying emotional issues or compulsive behavior patterns will undoubtedly feel worse than when they began therapy. Also, to the extent that persons with same-sex desires are engaged in sexual compulsions or experience other psychological or relational difficulties, a high recidivism rate may not be unrealistic—similar to what is found when treating substance abuse and other habits.

In general, interventions for unwanted same-sex attractions and behavior have been shown to help a number of clients and have not been shown to be invariably harmful (Throckmorton, 1998, 2002). Even authors who clearly oppose such intervention and who caution that it may be harmful nonetheless recognize that it is not always so (Haldeman, 2001; Schroeder & Shildo, 2002; Shildo & Schroeder, 2002). Even clients who are disappointed by failure to change their same-sex thoughts, feelings, fantasies, and/or behaviors as much as they had hoped have reported satisfaction with the changes they did achieve, and they regard the counseling process as at least somewhat helpful (e.g., Nicolosi et al., 2000; Shildo & Schroeder, 2002; Spitzer, 2003; Throckmorton, 2002). While a client's dissatisfaction is a possible and unfortunate consequence of any therapy, such dissatisfaction is not inherently "harmful" and may be minimized by the responsible practice of timely and accurate informed consent (cf. Guideline 5).

Regardless of theoretical orientation or treatment modality, some psychological or interpersonal deterioration or other negative consequences appear to be unavoidable for a small percentage of clients, especially those who begin therapy with a severe "initial level of disturbance," such as borderline personality disorder (Lambert & Ogles, 2004, p. 177). Clients who experience significant negative countertransference or whose clinicians may lack empathy or underestimate the severity of their problem may also be at greater risk for deterioration (Mohr, 1995).

Finally, in light of current research and professional ethics, some interventions for unwanted same-sex attractions and behavior are not recommended. These include shock therapy and other aversive techniques, so-called reparenting therapies, and coercive forms of religious prayer.

Overall, research to date has shown that clients participating in efforts to change unwanted same-sex attractions or behaviors are not invariably harmed by doing so. Any negative consequences attributed to experiencing change-oriented interventions have not been shown to outweigh the benefits claimed by those who have found the interventions helpful.

Guideline 7. ***Clinicians are encouraged to be knowledgeable about the psychological and behavioral conditions that often accompany same-sex attractions and to offer or refer clients to relevant treatment services to help clients manage these issues.***

When treating clients with unwanted same-sex attractions and behavior, it is strongly encouraged that clinicians do a complete assessment that includes a detailed history and examination. Clincians should be particularly alert to the potential of associated psychopathological conditions. While often limited by restricted samples, lack of controls, and/or indeterminate causal pathways, studies of mental health morbidity among adults reporting same-sex partners consistently suggest that lesbians, gay men, and bisexual individuals may experience higher risk for some mental disorders when compared to heterosexual adults (Cochran & Mays, 2009; King et al., 2008). Cochran, Sullivan, and Mays (2003) found that gay and bisexual men showed higher prevalence of depression, panic attacks, and psychological distress than heterosexual men; lesbian and bisexual women showed greater prevalence of generalized anxiety disorder than heterosexual women in the same study. This excessive risk of co-occurring psychopathology needs to be at the forefront of a clinician's mind when working with individuals who report same-sex attractions, whether wanted or not.

A key issue in health care is risk assessment and management; in mental health terms, it is important to assess the risk of self-harm or suicide. Research has demonstrated a strong association between suicide risk and same-sex attractions and behavior (Eskin et al., 2005; King et al., 2008; Ploderl & Fartacek, 2005; Remafedi, French, Story, Resnick, & Blum, 1998). Data from the National Comorbidity Survey found that people with same-sex partners have consistently greater odds of experiencing psychiatric and suicidal symptoms compared with their heterosexual peers (Gilman et al., 2001). This finding has been consistent in studies of both young people (Russell & Joyner, 2001) and adults (Remafedi et al., 1998). Such suicidal feelings may not be only the result of prejudice or societal pressures; even in Holland, a country with a comparatively tolerant attitude to

homosexuality, men with same-sex attractions and behaviors are at a much higher risk for suicidality than heterosexual men (de Graaf, Sandfort, & ten Have, 2006).

Sex addiction often co-occurs with same-sex behavior (Dodge et al., 2008; Guigliamo, 2006; Kelly, Bimbi, Nanin, Izienicki, & Parsons, 2009; Parsons et al., 2008; Quadland & Shattls, 1987). Instead of "enjoying sex as a self affirming source of physical pleasure, the addict has learned to rely on sex for comfort from pain, for nurturing or relief from stress" (Carnes, 1992, p. 34). This type of addiction often has roots in childhood and adolescence; as many as 60 percent of people who seek treatment for sex addiction were sexually abused before reaching adulthood (Griffin-Shelley, 1997). Clients with same-sex attractions commonly report other addictive behaviors as well, including pathological gambling (Granta & Potenzab, 2006) and substance abuse of prescribed, illicit, and over-the-counter medications. A thorough history should include assessment for these and other common addictive behaviors.

Individuals reporting same-sex attractions and behavior also appear to have suffered a higher prevalence of sexual abuse (Doll, Joy, Bartholow, & Harrison, 1992; Eskin et al., 2005; Paul, Catania, Pollack, & Stall, 2001; Tomeo et al., 2001; Wilson & Widom, 2010). It is therefore imperative that clinicians take a full and detailed history from each client.

While clinicians should complete a full assessment to screen for active psychopathology, they must also take care not to practice in a clinical area where they are not competent (American Psychological Association, 2002). If active psychopathology is detected, it should be addressed through multidisciplinary consultation or by referral to an appropriate service where clinically necessary (cf. Guideline 11).

Guideline 8. ***Clinicians strive to consider and understand the difficult pressures from culture, religion, and family that are confronted by clients with unwanted same-sex attractions.***

The societal pressures that surround people with unwanted same-sex attractions cannot be understated. Careful appraisal of the multiple contexts from which these clients come and the normative attitudes toward homosexuality found in each milieu will benefit clinical intervention.

One pervasive dimension is culture, which includes ethnic heritage and the varying perspectives on homosexuality common to each ethnicity. For example, clients coming from African-American or Hispanic backgrounds often live in communities that have traditional and more uniformly negative views of homosexuality (Greene, 1998; Herek & Gonzalez-Rivera, 2006; Martinez & Sullivan, 1998; Schulte & Battle, 2004; Vincent, Peterson, & Parrott, 2009).

Another critical dimension is the religious background of these clients, since many who seek interventions for unwanted same-sex attractions and behavior often come from conservative faith communities (Haldeman, 2002, 2004; Nicolosi et al., 2000; Rosik, 2003a; Schulte & Battle, 2004; Spitzer, 2003). Most of these individuals will have previously adopted from their religious background a value framework that considers homosexual behavior as immoral. Some religiously conservative clients will have grown up hearing homosexuality condemned by religious authorities who may—or may appear to—lack compassion for their struggle.

A third dimension worthy of careful evaluation is the family context of clients (Yarhouse, 1998b). The attitude of parents and heterosexual spouses toward clients' same-sex attractions is the factor that can likely exert the most immediate influence on the mind-set of those seeking change. The extent to which clients have disclosed their unwanted same-sex attractions to family members will also affect clients' clarity concerning how their loved ones might respond. Clients may receive a variety of messages from family members, ranging from gay affirmation to loving disapproval to outright rejection and distancing (Freedman, 2008).

The effects of ethnicity and religious identity can overlap with family considerations and may intensify a sense of reluctance to acknowledge, explore, and seek

therapy for unwanted same-sex attractions. An important factor is client proximity to these contexts; clients coming immediately from nonaffirming backgrounds may not have been as reflective about their decision to pursue change as clients who report having once lived a gay identity but who now wish to change that identity.

The early assessment of these contexts is important in determining how ready a client may be for interventions oriented toward change. Clients from ethnic, religious, and family backgrounds that do not affirm homosexuality need to be assessed carefully to make sure they are acting in a reasonably self-determined manner as they seek intervention. This important precaution is not to assert, as some have done (Davison, 2001; Murphy, 1992), that clients from these backgrounds can never autonomously enter into therapy with the goal of attempting to change unwanted same-sex attractions and behaviors. But while people do make rational and free choices to identify with the moral values and behavioral codes of conduct for sexual expression inherent in homosexually nonaffirming contexts (Yarhouse & Burkett, 2002), it cannot be assumed that this is always the case. Therefore, it is essential to explore with clients the attitudes and beliefs toward same-sex attractions and behavior that dominate their particular cultural and family situation as part of evaluating the extent to which they have genuinely taken ownership of their decision to pursue change.

Guideline 9. ***Clinicians are encouraged to recognize the special difficulties and risks that exist for youth who experience same-sex attractions.***

Research suggests that in 50 percent of the population, first attraction to the same or opposite sex has occurred by age ten (Hamer, Hu, Magnuson, Hu, & Pattatucci, 1993; Whitam & Mathy, 1986)—but there is an unusually wide age range during which those first feelings of attraction occur. Some are still essentially asexual until their late teens in spite of the highly sexualized cultural climate in the West.

Even when experiences with attraction occur, they may not be "reliable." Neurology—including that of the brain—continues to develop throughout adolescence

(Sisk & Zehr, 2005), so teens generally lack mature judgment, even though they are at or near their physical peak in their late teens. Many use the late teen years to explore what mature possibilities may exist for them and to then evolve an identity by experimenting with a wide range of experiences. Sexual initiation usually occurs during this time (Floyd & Bakeman, 2006).

A mature estimate of risk does not conform to reality during adolescence. Teens tend to underestimate familiar risks and overestimate the possibility of remote risk. The risk of HIV is clearly underestimated by mature people, but adolescents' estimation of risk is less realistic still, even though their risk of infection is not much less than that of adults (Lock & Steiner, 1999). Unfortunately, teenagers may also be reluctant to listen to input about such risks. Consequently, responsible clinicians will offer more directive guidance to youth than to more mature clients, particularly when a client's estimate of risk is unrealistic. This type of guidance may involve more mentoring than for a mature client or referral to someone who can mentor the client.

Statistical surveys show that adolescents participate in considerable sexual experimentation, much of which is not followed up on in adulthood—and, therefore, those types of experimentation can be considered far from definitive (Laumann et al., 1994). Changes of various types continue to take place even during adulthood (Kinnish et al*.,* 2005). Consequently, adolescents may prematurely decide they have a particular sexual orientation, and hence should be warned against hasty conclusions. A very significant proportion of young women are most comfortable with the "unlabeled" sexual orientation category (Diamond, 2008); conversely, they might be told that, with strong motivation, change may be easier during adolescence than during adulthood.

Each year, about 42 percent of youth are exposed, either willingly or unwillingly, to Internet pornography; over the period of a few years, almost all youth get exposed (Wolok, Ybarra, Mitchell, & Finkelhor, 2007), so the effects of such pornography should be monitored. Youth may absorb quite unrealistic ideals as a result, and may even draw

incorrect conclusions; for example, compulsive or addictive use of gay pornography may lead a young person to assume that he is gay when he is merely compelled or addicted to sexual gratification.

Surveys show that adolescents who reach a conclusion about their sexuality and who are distraught about its perceived consequences are at highest risk of suicide immediately before they disclose their “secret” to anyone (Paul et al., 2002). Therapists should be particularly aware of the fragility of such clients, who tend to be those without social support. Suicide risk among youth with same-sex attractions decreases 20 percent each year they delay labeling themselves as gay (Remafedi, Farrow, & Deisher, 1991). Although causal links are not clear, it is prudent to encourage teens to wait for some time and maturity to take place before they label themselves as gay.

Clinicians should also consider carefully whether disclosure of the client’s struggle to unaware family and friends is in the client’s best interests (Rosario, Schrimshaw, & Hunter, 2009; cf. Guideline 8). Many who disclose their homosexuality to unsympathetic family join the ranks of the homeless and then become at risk for drug use, prostitution, and violence (Tyler, Whitbeck, Hoyt, & Cauce, 2004). The reactions of peers at this age can be brutal—brutality tends to peak in the adolescent years, probably because teens have less empathy than younger or older people. Brutality can also occur because there is still intense pressure from peers to conform to stereotypical gender roles during adolescence.

Male adolescents will probably report rejection and discrimination by others much more than female adolescents will (Hershberger & D’Augelli, 1995). Such rejection may be more perceived than actual but can have real effects for clients. The literature suggests that, in some cases, emotional and avoidance coping styles may account for perceived rejection more than the actual circumstances do (Sandfort, Bakker, Schellevis, & Vanwesenbeeck, 2009). Therefore, it is wise to examine an individual’s coping style.

Co-occurrence of standard DSM conditions is much higher for such clients than others (Fergusson, Horwood, & Beautrais, 1999), so clients should be checked for, among others,

substance abuse (Sandfort, de Graaf, Bijl, & Schnabel, 2001; Trocki, Drabble, & Midanik, 2009), antisocial behavior (Fergusson et al., 1999), depression (Cochran et al., 2003), compulsivity (Dodge et al., 2008), and borderline personality disorder (Sandfort et al., 2001).

Education

Guideline 10. ***Clinicians are encouraged to make reasonable efforts to familiarize themselves with relevant medical, mental health, spiritual, and religious resources that can support clients in their pursuit of change.***

Unwanted same-sex attractions and behaviors often co-occur with formally diagnosable or otherwise evident medical, psychological, behavioral, and relational difficulties (cf. Guideline 7). Therefore, clinicians should make reasonable efforts to familiarize themselves with relevant approaches to health care that address applicable areas of difficulty.

It is essential for clinicians to keep current about health psychology and related behavioral health issues and to refer clients to specialists when care is outside their scope of practice. These health issues include, but are not limited to, how to improve general health habits (such as diet, exercise, relaxation, and sleep), the use of relevant psychotropic medications and understanding of their interactive effectiveness with psychotherapy, ways to enhance compliance with medical directives, and how to determine when partial and inpatient hospitalization is indicated (Creer, Holroyd, Glasgow, & Smith, 2004; Thase & Jindal, 2004).

Addressing clients' co-occurring medical or psychiatric difficulties may sometimes have greater priority than helping them resolve unwanted same-sex attractions or behaviors; psychological care may become an important support to enable clients to comply with other medical directives. At other times, treating medical or psychiatric difficulties may enable clients to engage in psychological and spiritual interventions more effectively. Additional adjunctive interventions may include referring for

psychoeducation (such as individual or group substance abuse counseling) or referring to couples therapy, family therapy, group therapy, or peer-support groups when clients need and are able to benefit from therapeutic relational and group interaction. Referrals also may help clients successfully deal with co-occurring sexual abuse, substance abuse, eating disorders, or other compulsive or addictive behaviors (Lambert & Ogles, 2004).

Parents who are concerned about children with Gender Identity Disorder or unwanted same-sex attractions might be referred for parent education and family therapy (Lundy & Rekers, 1995; Rekers, 1995; Zucker & Bradley, 1995). Clinicians are encouraged to be prepared to make referrals to other health-care professionals so clients can receive primary, sequential, alternative, combined, or adjunct medical or mental health assistance in a timely way.

In addition, clinicians serving clients who seek to resolve unwanted same-sex attractions and behaviors are also encouraged to be prepared to offer their clients pastoral care, either directly or by referral. Religious or spiritual beliefs, practices, and social interactions can offer motivation and support for a client's desired changes (cf. Guidelines 3 and 4). Clinicians should therefore make reasonable efforts to assess their clients' religious beliefs, moral values, and spiritual practices and be prepared to support clients' utilization of appropriate spiritual and religiously oriented resources to achieve intended changes (Richards & Bergin, 2000).

Clinicians should wisely recognize that, in general, religion can be beneficial to psychological and interpersonal health, more "intrinsic" ways of being religious appear to be healthier, and clients who are more religiously devout tend to "prefer and trust clinicians with similar beliefs and values" (Gregory et al., 2008; Richards & Bergin, 2005, p. 307). Also, the use of spiritual or religiously inspired aides such as prayer, forgiveness, meditation, and twelve-step groups based on spiritual principles have been shown to be therapeutically effective as part of or as an adjunct to clinical intervention (Benson, 1996; Enright & Fitzgibbons, 2000; Richards & Bergin, 2004, 2005).

Studies of clients with unwanted same-sex attractions and behavior who have used spiritual aides, religious activities, and pastoral counseling—whether as adjuncts to psychotherapy or separate from therapy—report positive results (Jones & Yarhouse, 2007). Even when clients did not change as they had intended, some asserted that the process was helpful, even when the research was designed to elicit reports of intervention failure, harm, or dissatisfaction from religiously mediated efforts to change (Shildo & Schroeder, 2002). When the research was designed to elicit reports of success or satisfaction with their participation, substantially more were favorable (Nicolosi et al., 2000, 2008; Spitzer, 2003). The more rigorous the research design, the more clearly results have shown that spiritual/religious/pastoral counseling approaches by themselves have been able to reduce or eliminate unwanted same-sex attractions and behaviors (Jones & Yarhouse, 2007; Yarhouse, Burkett, & Kreeft, 2002).

Guideline 11. ***Clinicians are encouraged to increase their knowledge and understanding of the literature relevant to clients who seek change, and to seek continuing education, training, supervision, and consultation that will improve their clinical work in this area.***

The literature on homosexuality is at first glance an academic field like any other, even though it might be considered slightly more active because new references accumulate almost every day. That view is deceptive, though: Same-sex attraction is not an isolated clinical entity. A very wide range of conditions occur with it, and clinicians need to have a reasonable knowledge of these conditions—or at the very least be able to recognize those conditions readily and refer clients to others as necessary (cf. Guideline 7). This greatly increases the responsibility of clinicians to keep current with the literature.

Research has generally shown that people reporting same-sex attractions and behavior (mainly the men who have been studied) have much greater prevalence of

pathology than the general population. The consistency of these findings counterbalances to some degree the methodological limitations. These differences in prevalence have been reported or can be inferred in several areas: suicidal risk-taking in unprotected sex (van Kesteren, Hospers, & Kok, 2007); violence (Coxell, King, Mezey, & Gordon, 1999; Owen & Burke, 2004); antisocial behavior (Fergusson et al., 1999); substance abuse (Rhodes, McCoy, Wilkin, & Wolfson, 2009; Sandfort et al., 2001; Trocki et al., 2009); suicidality (de Graaf et al., 2006; King et al., 2008); more sexual partners (Laumann et al., 1994; Mercer et al., 2009; Rhodes et al., 2009); paraphilias, or so-called fisting (Crosby & Mettey, 2004); being paid for sex (Schrimshaw et al., 2006); sexual addiction (Dodge, Reece, Cole, & Sandfort, 2004; Parsons et al., 2008; Satinsky et al., 2008); personality disorders (Zubenko, George, Soloff, & Schulz, 1987); and psychopathology (Sandfort et al., 2001). It is difficult to find a group of comparable size in society with such intense and variable co-occurring pathology.

As a rule of thumb, many of these characteristics have prevalence rates about three times those reported in the general population, sometimes much more. A check of any medical database shows that there are many more articles—generally ten times as many—dealing with conditions that co-occur with homosexuality than articles restricted to homosexuality alone. It is not enough to read about homosexuality alone, then, but it is essential to read the much greater number of co-associated articles and to benefit from the understanding these articles make possible.

References to HIV are extensive in the literature, and it is quite possible this condition will co-occur with same-sex behaviors. Even if HIV infection is under control, the prevalence of various cancers in AIDS patients is about twenty times greater than in the general population (Galceran et al., 2007). A clinician may well encounter clients with these kinds of medical needs and will need to address appropriate treatment issues.

Psychotherapeutic intervention for unwanted same-sex attractions and behavior is controversial in a way that is seldom experienced today for other conditions. As a result,

clinicians face the risk of unanticipated legal consequences (Hermann & Herlihy, 2006), deal with more complex therapy, and have a greater-than-average need to stay current in the field and be aware of the latest implications of research and good practice.

This kind of intervention is also exceptionally complex. Clinicians need to understand the consequences to the client's psyche of having an associated medical condition or suffering strong rejection because of attitudes toward homosexuality.

The varieties of change-oriented counseling are numerous, and there is no consensus on the best approach. This requires clinicians to be aware of other intervention strategies and theoretical approaches and to be willing to adopt useful insights and previously successful techniques (cf. Guideline 6). Alongside this, the variety of experiences among clients is significantly diverse (Otis & Skinner, 2004), which demands a greater versatility of response from the clinician and greater familiarity with the research literature.

Much of the literature pertaining to homosexuality is at risk of being irrelevant because it is associated with the political aspects of the topic. The remainder of the relevant literature involves many widespread fields, including genetics, physiology, sociology, urban anthropology, and psychotherapy. Thus, clinicians must strive to locate relevant material in unusually diverse fields. Clinicians also need to be prepared for the fact that clients often read this same material and want to discuss it. It is probably worthwhile that clinicians use a service on the Internet—such as PubMed—to alert them when relevant new material is published.

Focused events such as seminars and conferences are more important than usual because change-oriented interventions for unwanted same-sex attractions and behavior are not as widely known and practiced as counseling for other conditions; as a result, collegial consultation becomes more important. Finally, it goes without saying that clinicians must attempt to keep current in the psychological disciplines in general, with the usual accompanying need for continuing education.

Applications and Conclusion

These guidelines were developed with multiple purposes in mind and ideally will have many applications. First, the guidelines are intended to address the needs of clinicians and provide specific guidance from experienced clinicians to colleagues who are currently practicing or who are considering the use of change-oriented interventions for unwanted same-sex attractions and behavior. As such, these guidelines encourage excellence in practice that, when followed, should limit the risk of harm and expand the probability of favorable outcomes for clients seeking some measure of change. The guidelines also serve to educate clinicians by providing an entry point into aspects of the professional literature that may be underreported by national mental health associations.

Second, these guidelines inform consumers who are receiving or considering therapeutic intervention to change their unwanted same-sex attractions and behaviors. The guidelines provide a broad evaluative framework that helps these clients determine if the clinical services they receive are being provided in a sufficiently professional and ethical manner. Consumers of change-oriented intervention may find value in discussing these guidelines with their clinicians. Discussing them early in treatment as part of the informed consent process may facilitate planning of both short-term and long-range goals.

Periodically and at the end of a course of treatment, clinicians may also use these guidelines to assess the therapeutic progress that has been achieved by clients and to review and renegotiate any remaining goals. As is true for all approaches to psychological care for any problem, the most effective therapeutic alliance occurs when there is initial and ongoing clarity of purpose and goals shared by clients seeking change and their clinicians.

The social, scientific, and medical information made available through these guidelines may also benefit consumers as they weigh the benefits and risks of pursuing change-oriented intervention in comparison to therapeutic approaches that endorse or embrace a gay or lesbian identity. In this way, these guidelines can contribute to a more fully informed and autonomous decision-making process by clients who want to know

what clinical approach—if any—they want to use for their unwanted same-sex attractions and behavior.

Finally, these guidelines can help mental health associations and graduate training programs facilitate a balanced and informed discussion about change-oriented intervention. The guidelines complement the existing professional literature pertaining to psychological care for those with unwanted same-sex attractions and behavior by their nondismissive focus on change-oriented intervention. The guidelines may thus encourage more individuals within these associations and universities to engage in valuable dialogue, education, and research about the place such interventions have in the array of therapeutic responses to unwanted same-sex attraction and behavior. The guidelines also may provide interested clinicians and students an opportunity to become educated about the professional practices of responsible change-oriented clinicians.

Mental health associations have emphasized the importance of client autonomy and self-determination within a therapeutic environment that honors diversity. This respect for diversity should oblige clinicians to give as much weight to religious belief and traditional values as to sexual identity (Benoit, 2005). Within the contemporary milieu of psychological practice, this especially needs to be emphasized when addressing the choices clients make about how to approach their unwanted same-sex attractions and behavior. When conducted in a manner consistent with these guidelines, change-oriented intervention deserves to be made available to clients who seek it.

Footnotes

[1] These guidelines were adopted by the National Association for Research and Therapy of Homosexuality's Board of Directors on October 25, 2008, and reaffirmed upon subsequent revisions prior to publication.

[2] These guidelines were developed by the NARTH Practice Guidelines Task Force (PGTF). The PGTF chair was Christopher H. Rosik, Ph.D.* (Link Care Center/Fresno Pacific University). The PGTF members included Marc Dillworth, Ph.D. (independent practice, Bradenton, FL); Floyd Godfrey, M.A., L.P.C. (Family Strategies & Coaching, LLC, Mesa, AZ); Paul Miller, M.D., D.M.H., M.R.C.Psych.* (ABEO, Belfast, Northern Ireland); David Pickup, M.A. (Thomas Aquinas Psychological Clinic, Encino, CA); Paul Popper, Ph.D.* (independent practice, San Francisco, CA); and Philip Sutton, Ph.D.* (independent practice, South Bend, IN). Others who contributed to the development of these guidelines were A. Dean Byrd, Ph.D., M.P.H. (University of Utah, Salt Lake City, UT); Neil Whitehead, Ph.D.* (research scientist, Lower Hutt, New Zealand); and David Wood, Ph.D.* (LDS Family Services, Chicago, IL). Individuals who made primary contributions to the authorship of these guidelines are identified by the symbol *.

Requests for copies of these guidelines should be addressed to the National Association for Research and Therapy of Homosexuality, 307 West 200 South—Suite 3001, Salt Lake City, UT 84101; they can be ordered by phone at 1-888-364-4744 or online at http://narth.com

[3] An example of such genetic predisposition occurs when a girl, through her genetic inheritance, is attractive to boys and hence more likely to become pregnant as a teenager. This is a weak and indirect effect because many other cultural and situational factors are involved in determining whether she has early sexual intercourse, and those influences usually predominate.

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Behavioral Genetics and Homosexuality

By Douglas A. Abbott[*]

University of Nebraska, Lincoln, NE

* Douglas A. Abbott earned a Ph.D. in Child Development and Family Studies from the University of Georgia and is professor of Child, Youth, and Family Studies at the University of Nebraska–Lincoln.

Abstract

Behavioral genetics is a branch of science that investigates the genetic influence on human behavior. The science of behavioral genetics, however, is often misunderstood by the typical layperson and even by the knowledgeable social scientist. The purpose of this paper is to explain basic concepts of behavioral genetics and its application to understanding the possible causes of homosexuality. The author concludes that although homosexuality may be influenced by genetic factors (as are all complex psychosocial behaviors), it is not determined solely or even primarily by genetic factors. Homosexuality is a complex psycho-social-biological phenomenon with possible genetic, environmental, and freewill influences.

In order to explore the position that homosexuality is innate and has a direct genetic cause, it is imperative to understand basic concepts and assumptions about behavioral genetics (Bazzett, 2008). This paper will explain fundamental principles of behavioral genetics and will explore how behavioral genetics can lead to an understanding of homosexuality.

Before proceeding, an explanation of terms is required. *Homosexuality* is usually defined as a complex phenomenon involving thoughts, feelings, and behaviors. The *thinking* aspect includes the self-definition of one's sexual orientation as heterosexual, homosexual, bisexual (or some other variation of these labels, such as mostly heterosexual or bi-curious); the thinking part also includes fantasies and other related cognitions. The *feeling* aspect is one's emotional and physical attraction to people of the same sex, to those of the opposite sex, or to those of both sexes. It includes both romantic feelings and sexual attraction, which is sometimes referred to as *same-sex attraction* (SSA). The third element of homosexuality is *behavior*—the act of having intimate sexual interaction with another person or persons or the act of self-masturbation with or without pornography.

Not all individuals have a clear and seamless interface between the thinking, feeling, and behavioral elements of homosexuality. A person may self-identify as "heterosexual" and have romantic and erotic feelings for people of the opposite sex, but may have engaged in same-sex relations. Or a person may self-identify as "homosexual" and have romantic and erotic feelings for people of the same sex, but may not have actually engaged in same-sex relations.

These three aspects of homosexuality complicate the issue of how genes influence homosexuality. We must then ask the following: *Which aspects of homosexuality are influenced by genes and which elements are more influenced by environment?*

Same-gender sexual attraction may be more connected to heredity than is self-identity as gay or lesbian. However, for the sake of simplicity, the *genetic influence on homosexuality* refers to the way in which genes affect the total complex of thinking,

feeling, and behavior. Furthermore, in this paper a homosexual is defined as one who is consciously and persistently sexually attracted to those of the same gender, has engaged in homosexual behavior and intends to do so in the future, and who self-identifies as gay or lesbian.

Many people believe that genes cause complex psychosocial behavior (Ridley, 2003), yet this is not the case. In most instances, behavior results from genetic influence interacting with environmental inputs and with self-determination, such as moral agency (Lerner, 2006). Genetic influence, however, can be misunderstood by the educated layperson and by the naïve social scientist, especially when the newspaper headline reads, "Gene X Has Been Found to Cause Behavior Y" (Jang & Vernon, 2005). In almost all cases, such a headline is a gross overstatement. Genes do not directly cause behavior, but rather genes create the code for proteins that, through a long series of biochemical processes, eventually have some influence on behavior (Bazzett, 2008; Norgate & Richardson, 2006). The leap from an identified gene to a specific behavior is very complex and convoluted (Jang & Vernon, 2005; Rutter, 2006). As Wine (2000) stated, "It is very difficult to jump from gene to behavior, or more generally to bridge the chasm between genotype and phenotype" (p. 1).

Part 1: Overview of Basic Genetics

Each body cell contains forty-six chromosomes, twenty-three inherited from the mother and twenty-three from the father. Chromosomes are tiny, coiled strings of DNA—deoxyribonucleic acid—that microscopically look something like a tightly twisted ladder with rungs in the middle supported by sidebars (Carey, 2003). An average chromosome has about 100 million nucleotides or nitrogenous bases (Klug, Cummings, Palladino, & Spencer, 2009).

There are four types of nucleotides: thymine linked to adenine (TA links) and its reverse (AT), and cytosine linked to guanine (CG links) and its reverse (GC). The

nucleotides form two chains and are connected by sugar-phosphate molecules, which give structural support to the nucleotides; the nucleotides form the DNA molecule, which in turn makes up the chromosome. A very long string of nucleotides, made up of thousands of base pairs, comprise a single gene.

A gene is a short segment of DNA in a particular location on a specific chromosome (Bazzett, 2008). Geneticists believe there are 20,000 to 25,000 genes in human DNA (Carey, 2003). Alternative forms of genes are known as alleles. For example, there are three distinct alleles that result in blood types A, B, and O.

An average length of about 1,500 nucleotides makes a gene. But the typical chromosome only has 2,000–3,000 genes, so most of the chromosome is non-coding DNA. This means the majority of our DNA (about 97 percent) does not code for proteins but has other functions—such as structural support or gene regulation—in other words, turning genes off and on (Kolb & Whishaw, 2004).

If you unwind and string out a single chromosome, revealing all its base pairs (AT, TA, GC, and CG), the string would be almost identical in every person. But in every few thousand nucleotides, there would be a small difference that would make the chromosome unique—for example, a TA might be replaced with a CG. While there are approximately three billion nucleotides in the human genome, human DNA varies from one person to another by only a few million nucleotides! These minor variations in DNA segments that do not result in diseases or disability are known as polymorphisms.

Genes carry instructions, much in the way a building construction blueprint does; they instruct the body to manufacture proteins or to activate or deactivate other genes (Plomin, DeFries, & McClearn, 1980). Genes also spell out the "order in which amino acids should be assembled to construct a certain protein" (Kolb & Whishaw, 2004, p. 94). Single genes usually make one protein or part of one protein; for example, the DNA sequence AAC-GTA-TCG-CAT would be read as a polypeptide chain of four amino acids: leucine-histidine-serine-valine (Cary, 2003).

Genes can influence behavior in three ways: (1) by the action of a single gene of major effect, such as phenylketonuria (PKU); (2) by a small number of genes of moderate effect, called *oligogenic*, such as those that cause celiac disease; or (3) by many genes of small effect, called *polygenic*, such as those that cause heart disease or diabetes.

Abnormal genes (or gene mutations) have alterations in their base sequence—such as additions, deletions, or substitutions of nucleotides—that then affect protein synthesis. Three outcomes of gene mutation are possible. First, an abnormal protein may be produced that has little or no noticeable effect on normal functioning. Second, the abnormal protein may have a significant negative effect on organism functioning. Third, the abnormal protein may have little effect on the organism under normal living conditions but may have a significant adverse effect under certain stressful environmental conditions, such as malnutrition, abuse, disease, toxic chemicals, or abnormal hormonal changes. "This last category of abnormal gene function is considered a *genetic predisposition*" (Bazzett, 2008, p. 49).

The word *protein* comes from the Greek "proteos," meaning "of primary importance." A protein is a long chain of amino acids folded up into a specific three-dimensional shape. There are twenty common amino acids, but these can combine in various ways to make thousands of proteins. Proteins made in cells may remain in the cell to support cell structure and function, or they may be excreted and exported to other parts of the body. Examples of proteins include enzymes, antibodies, and some hormones and neurotransmitters.

The action of genes is sequential. First, a DNA segment is transcribed into messenger RNA. The messenger RNA is then translated by ribosomes (small biochemical factories in the cell) into a chain of amino acids. As chromosomes move about the nucleus, they change shape and expose new segments of DNA to intracellular fluid, which triggers the process of transcription and translation of a different gene into a new protein.

Four Facts about Genes

Fact 1. Thus far, scientists have identified only a few physical disorders that are caused by the action of a single gene (Quarrell, 2007). These include Huntington's disease, cystic fibrosis, early-onset familial-type Alzheimer's disease, and PKU. As an example, PKU is caused by a single gene mutation on Chromosome 12 that causes the inability to digest the amino acid phenylalanine—an amino acid that is part of most protein-rich foods, including meat, milk products, and nuts. If not treated, PKU can lead to mental retardation, stunted growth, and emotional-behavioral problems.

Another example of a single gene action is Huntington's disease, which is caused by overrepetition (also called a repeat expansion) of the three-base sequence CAG on the short arm of Chromosome 4. Instead of the usual five to twenty-five triplets of CAG (cytosine, adenine, and guanine), people with Huntington's have from forty to almost two hundred CAG triplets in a row. "The abnormally expanded CAG segment leads to the production of a defective Huntington protein that contains a long stretch of the amino acid glutamine. This elongated protein disrupts the normal function of nerve cells in certain parts of the brain, and ultimately leads to the death of those cells" (*Genetics Home Reference,* 2008). The loss of brain cells causes the devastating symptoms of Huntington's disease, including uncontrolled movements, emotional disturbance, and dementia.

Still another example is fragile X syndrome, which is caused by a similar process but results from the expansion of the triplet CGG on the long arm of the X chromosome; instead of the normal twenty-five to fifty repeats, there are a hundred to four hundred repetitions. The normal gene produces codes for a protein (FMRP) that regulates other proteins involved in learning and memory. When this gene doesn't work, the brain produces too many synapses too quickly, and the synapses are immature and fragile, thus the name "fragile X syndrome." Children with fragile X often suffer from autism, mental retardation, and ADHD.

Fact 2. Complex behaviors (such as homosexuality) probably involve multiple genes that are affected by a variety of environmental events (Human Genome Project Information, 2008). If many genes influence sexual orientation, then the phenomenon we call homosexuality is polygenic. Researcher D. H. Hamer and colleagues have identified one gene on the X chromosome that may be implicated in homosexuality in some men (Hamer, Hu, Magnuson, Hu, & Pattatucci, 1993). However, the existence, number, and location of candidate genes affecting sexual orientation have not been determined, and efforts to identify any that may exist continue to be unsuccessful (Byne, 1995, 2007). In some psychopathological conditions, such as autism and depression, more progress has been made in identifying multiple genes and their mechanisms on biochemistry (Jang & Vernon, 2005).

In addition to the possible polygenic nature of homosexuality, this trait or condition is also mulitfactorial—in other words, it has many aspects or elements, including physical, psychological, social, and even political (Carey, 2003). Each element or aspect of homosexuality may have a different genetic and environmental basis (Ridley, 2003).

In summary, homosexuality appears to be a polygenic and multifactorial phenomenon composed of several elements, and each element is probably influenced by many genes.

Fact 3. Single-gene traits usually produce discrete phenotypes. In the case of genetic diseases, either one has the disease or does not have the disease. Environment usually has little influence on these single-gene "qualitative" conditions. On the other hand, a polygenic trait results in a range of behavioral outcomes. Clinical depression is an example of a polygenic trait with a range of phenotypes. Depression has many symptoms, such as feelings of hopelessness, trouble concentrating, fatigue, feeling restless and irritable, and insomnia. Each of these symptoms is probably influenced by a different gene or gene combination, and each gene probably has lesser or greater sensitivity to environmental actions (Jang & Vernon, 2005). In addition, there is a wide range of depression phenotypes that can result in conditions ranging from mild chronic depression to severe acute depression.

Numerous studies have demonstrated that homosexuality (especially in men) is not a singular phenomenon but has a range of mental, emotional, and physical outcomes. Many homosexual men are not exclusively homosexual, and their sexual thoughts and behavior may vary and change over time. A homosexual man may have sex mostly with men, but also may have sex with women on occasion. A person who is currently bisexual may later self-identify as exclusively heterosexual or as exclusively homosexual. This fluidity of sexual thoughts, feelings, and behaviors is additional evidence that homosexuality is not a single-gene trait.

Another characteristic of polygenic traits is that they are more likely to be influenced by environmental inputs than single genes. Most mental illnesses are thought to be polygenic conditions, and there are many effective therapies for most acute and chronic conditions. In like manner, if homosexuality is polygenic, then unwanted homosexual desire and behavior should show some susceptibility to change due to education, therapy, other types of intervention, or other factors. In some cases, this has been shown to be true (Diamond, 2008; Jones & Yarhouse, 2007; Nicolosi, 2009; Spitzer, 2003).

Fact 4. Environments can and do affect the operation (or expression) of genes (Hubbard & Wald, 1999). Environments influence the functioning of DNA by turning protein-coding genes on and off. The social milieu can modify the proteins produced in various tissues and organs (Meaney, 2001). The choices we make, the lives we live, and the actions of those who love us or refuse to love us can “alter the very chemistry of our DNA” by turning genes on and off (Begley, 2007, p. 180). “Genes store information coding for amino acid sequences of proteins. That is all. They do not code for parts of the nervous system and they certainly do not code for particular behavior patterns” (Bateson & Martin, 2001, p. 34).

The relatively new science of epigenetics has demonstrated unequivocally that physical and psychosocial environments can and do turn specific genes on and off (Cabej, 2008; Church, 2009; Ridley, 2004). “At its most basic, epigenetics is the study of changes in gene activity that do not involve alterations to the genetic code but still get passed on to at least one successive generation” (Cloud, 2010, p. 2). The epigenome sits on top of and is

entangled with the genome, much like a series of light switches along a string of Christmas lights; the epigenome turns genes off or on due to other genes or environmental stimuli such as disease, stress, diet, or prolonged feelings of love or loneliness. "Lifestyle choices can change the epigenetic marks atop your DNA in ways that cause genes to express themselves too strongly . . . or too weakly" (Cloud, 2010; cf. Arai, Li, Hartley, & Feig, 2009).

In his book *The Genius in All of Us*, David Shenk (2010) states that the new science of epigenetics "obliterates the long-standing metaphor of genes as blueprints with elaborate predesigned instructions" (p. 16). Shenk declares we now have a more accurate metaphor:

> Rather than [genes as] finished blueprints, genes are more like volume knobs and switches [in a recording studio]. . . . Many of those knobs and switches can be tuned up/down/on/off at any time by another gene or by any minuscule environmental input. This flipping [of switches] and turning [of knobs] takes place constantly" in the human genome. (p. 16)

Shenk summarizes:

> We do not inherit traits directly from our genes. Instead, we develop traits through the dynamic process of gene-environment interaction. In the GxE [genes and environment act together] world, genetic differences still matter enormously. But, on their own, they don't determine who we are. (p. 18)

Thus any trait, condition, or behavioral outcome results from the interaction of genes and the environment.

Suomi (2004) provides an exemplary example of how environment can impact genes. The researchers bred rhesus monkeys that were born with various temperaments. Some showed high emotional reactivity—they became extremely excited and agitated

when separated from their mothers or challenged by a novel experience—and some displayed low reactivity. The differences appeared to be due to levels of serotonin in the brain. Suomi then placed high- and low-reactive baby monkeys with foster mothers who were high or low in reactivity. When the high-reactive babies were raised for six months by the low-reactive foster mothers, they displayed normal emotional reactivity even when separated from these mothers and put in cages with peers and unknown adult monkeys.

Suomi (2004) concluded that even heritable characteristics, such as fear and aggression in monkeys, can be shaped and modified by the environment, and "this is especially true of early attachments" (p. 43). Monkeys with a genetic proclivity to be timid and afraid can, with good mothering, overcome those developmental deficiencies. Suomi's research makes a strong argument that DNA is not destiny and that behavior is a result of gene-environment interaction.

Examples of environmental events affecting the brain and biochemistry of humans have also been found (Haviland et al., 2006). Cohen and colleagues (2002) have data to suggest that early childhood sexual abuse in boys leads to abnormalities in the temporal regions of the brain that may increase one's risk for becoming a pedophile.

These four facts about genes are uncontroversial and articulate the consensus of the scientific community. When considered together, these facts lead to the conclusion that homosexuality, like any other complex psycho-social-biological behavior, is not absolutely determined by a single gene or even by a group of genes. Environmental influences must be considered.

Part 2: Key Concepts in Behavioral Genetics

Behavioral geneticists (BGs) try to determine the unique and independent contribution of genetic and environmental influences to individual differences in behavior (DiLalla, 2004). Three key terms in this definition—*behavior, genetic influence,* and *environment*—are explained below.

1***. Behavior*** refers to "observable actions, or even emotions and moods"; it can be "unconscious, automatic, or instinctual." In a broader sense, even "personality" is a behavior (Baker, 2004, pp. 2–3). Behavior includes one's outward appearance and actions, but also includes emotions, moods, and mental states (Bazzett, 2008). Behavior may also be referred to as a phenotype.

2***. Genetic influence*** as a term is usually misunderstood. People interpret the phrase to mean that there is a powerful path directly from genes to behavior. This is not true. Genes produce proteins and enzymes that pass through multiple biochemical processes; these processes may eventually produce small changes in cell structure or functioning that may, in turn, influence behavior within a certain environmental context.

3***. Environment*** is any nongenetic influence, including internal biological entities such as nutrients, bacteria, viruses, and medicines (Baker, 2004). Environment includes any forces that impinge upon the person, such as family and neighborhood, peers, schools, the media, and even the climate and geography. Likewise, natural disasters, disease, and war are environmental factors.

BGs acknowledge that both environment and genes influence behavior and rarely assume "that one or the other is omnipotent" (Plomin et al., 1980, p. 374). Yet BGs also emphasize the powerful influence of genes on all types of human behavior, including intelligence, personality, criminality, and even belief in God (Owen, McGuffin, & Gottesman, 2001; Plomin, DeFries, Craig, & McGuffin, 2003). The ultimate goal of many BGs is to find specific genes that cause harmful physical or psychological conditions, and then to figure out ways to change the genetic influence (Owen et al., 2001). This could be done by creating a drug that counteracts (or blocks) harmful protein synthesis or by replacing the defective gene with a functional gene that will produce the correct protein at the right time and place in the body.

Now that the three terms have been explained, their interaction will be described. Gene-environment interaction (GEI) implies that genes act differently under different

environmental conditions. Environmental conditions, such as prenatal or postnatal influences, make possible the expression or suppression of various genes at different times in development. Because of GEI, it is nearly impossible to disentangle the separate and unique effects of genes and environment on complex psychosocial behaviors such as personality, intelligence, and sexual orientation.

Heritability is a critical concept in behavioral genetics, but is one that is difficult to understand, and in the end it has little value in understanding the etiology of homosexuality (Oftedal, 2005). A technical definition is as follows: Heritability is the proportion of phenotypic variation that is attributable to genotypic variation. Said another way, "Heritability describes the extent to which genetic differences among individuals in a population make a difference phenotypically" (Plomin et al., 1980, p. 224). Put simply, heritability refers to traits that are similar in parents and offspring (Stanford Encyclopedia of Philosophy, 2009). It means that physical characteristics or behavioral traits among kin are probably due to genetic variations in that particular family group. Heritability is an estimate of the relative contributions of genetic and environmental factors to a particular expressed trait, condition, or behavior.

Heritability is calculated using a complex series of mathematical formulas and is indicated by a numerical value that varies from 0 to 1. A heritability quotient of 0 indicates no genetic contribution to individual differences in phenotype, while a quotient of 1 indicates the behavior (the phenotype) is completely determined by genetic variation. Red hair would have a heritability of 1; a preference for red hybrid Honda automobiles probably has heritability near 0. Heritability is a population parameter and tells us nothing about individuals. For instance,

> a heritability of .40 informs us that, on average, about 40% of the individual differences that we observe in say, shyness [in a particular population] *may* in some way be attributable to genetic individual difference. It does not mean that

> 40% of any person's shyness is due to his or her genes and the other 60% is due to his or her environment. (Heritability: Introduction, 2009; Sesardic, 2005)

Michael Rutter (2006) illustrates heritability using the example of schizophrenia. Based on his meta-analyses of twin studies, he asserts: "The proband-wise concordance rate for schizophrenia in monozygotic twin pairs was [on average] 41–65 percent, as compared with 0–28 percent for dizygotic twin pairs, giving rise to a heritability estimate of appropriately 80 to 85 percent" (p. 65, also Footnote 1). This means that 80 percent of the variation in schizophrenia—in a specific sample at a specific point in time—is due to genetic variation in the sample population. This does not indicate that 80 percent of the reason why a particular person is schizophrenic is genetic. It simply means that there is probably "something" passed down from parents to children through genetic mechanisms that increase the offspring's chance of developing schizophrenia. But what that "something" is—the elusive gene or genes, as well as the dynamics of the GEI—has not been identified.

Now suppose that in a family study, heritability for homosexuality was found to be .30. This means that 30 percent of the variation in sexual orientation among a particular family group is assumed to be due to genetic variation, and 70 percent of the variation in sexual orientation is assumed to be a result of environmental experiences, including both shared and non-shared environments. Shared environments are those conditions that members experience equally, such as the family socioeconomic status or parenting style. Non-shared environments are the unique experiences that one member has but that other family members do not share, such as sexual abuse, exposure to pornography, or rejection by same- or opposite-sex peers.

A heritability estimate of .30 does not predict that three out of ten brothers of homosexual men will become homosexual. Nor would this estimate indicate that, for a specific person, 30 percent of his homosexuality is due to genetics and 70 percent is due

to environment. Heritability "is a relative percentage only—relative to the contributions from common environment and non-shared environments. In twin studies, heritability "is a measure of the balance between genetic and environmental influence on a trait at a [specific] place and point in time" (Whitehead & Whitehead, 2008, p. 15). In other words, heritability estimates only indicate that there is probably something in the genetic pool *of this sample at this time* that may be related—in other words, a correlation, not a cause—to the likelihood of a person expressing homosexuality. Heritability estimates say nothing about any individual's likelihood of engaging in homosexual behavior.

Heritability quotients have serious limitations (Sesardic, 2005; Tabery, 2006). First, a heritability estimate only applies to the sample from which it was derived. Second, heritability will rise or fall due to environmental conditions. In a society intolerant of homosexuality, as exists in many Muslims countries, the heritability quotient would be much smaller than in Denmark or Holland, where homosexuality is tolerated and widely accepted. Third, many large samples are needed to obtain valid heritability estimates applicable to a wider population, and this has not been done. Fourth, heritability is a population parameter like the mean for height; the average height of a population tells you nothing about the tallness or shortness of any particular individual. Likewise, the mean for height does not explain why a particular person is short or tall. A heritability quotient cannot be used to predict who will be the lanky basketball player or who will be the petite gymnast.

William Byne (2007) summarizes well some of the problems with using the concept of heritability to understand the appearance and prevalence of a given trait, like homosexuality:

> Heritability reflects only the degree to which a given trait is associated with genetic factors. It says nothing about the specific genetic factors involved or about the mechanisms through which they exert their influence. Furthermore,

heritability gives no information about how a particular trait might change under different environmental conditions. (p. 82)

Part 3: Studies of Genetic Influence on Homosexuality

"There are basically three kinds of inquiry used to demonstrate a genetic basis for [homosexuality]: family studies [also called gene linkage studies], twin studies, and adoption studies" (Lewontin, Rose, & Kamin 1984, p. 213). The simple idea behind all these studies is that if relatives of homosexuals report same-sex attraction and/or homosexual behavior at a higher rate than a comparison sample, then homosexuality must have a genetic component (Pattatucci, 1998).

A typical twin study works this way. Identical twins (monozygotic or MZ) and fraternal twins (dizygotic or DZ) are recruited where at least one of the twins is homosexual. The usual sample is a convenience sample recruited through gay and lesbian publications, websites, or homosexual support groups (Bailey & Dawood, 1998). The twins are asked to identify their sexual orientation in various ways, such as the gender of the objects of their physical and emotional attractions, their self-reported sexual orientation, and their number of ever or recent same-sex partners. Past studies, whose results have not been replicated by other studies, had shown that if an identical twin is homosexual, his identical brother had a 40 to 50 percent chance of also self-identifying as homosexual (Bailey & Pillard, 1991; Whitam, Diamond, & Martin, 1993). If one fraternal twin is homosexual, his brother has only a 9 to 19 percent chance of also being homosexual (Dawood, Bailey, & Martin, 2009). In adoption studies where a biological child identifies as homosexual, an adopted brother has only a 2 percent to 3 percent chance of being homosexual—about the same as the incidence of male homosexuality in the general population (see Dawood et al., 2009).

In other adoption studies, a child who is adopted at birth is compared to his or her biological parents for similarity of traits. It is assumed that the adoptive child shares genes but no environment with the biological parents and shares environment but no genes with

the adoptive parents. If the adoptive child turns out to be more like a biological parent—both self-identify as homosexual—then that trait is assumed to be genetic.

Such studies appear to show that genes exert some influence on the development of homosexuality. The closer the blood ties, and thus the more genes in common, the more likely that a homosexual boy will have a homosexual brother or a lesbian will have a lesbian sister. However, such studies have limitations. First and foremost is the use of biased samples. A typical sample is composed of homosexuals who know they have a brother or sister who is homosexual, so they readily volunteer for twin research. Thus, the pair-wise concordance rate in such samples may be greatly inflated. Even advocates such as J. Michael Bailey admit that sample bias can be a problem. Bailey suggests: "A homosexual twin who sees an advertisement for a [twin] study may be less likely to call if his twin is heterosexual, [and] this would cause concordance-dependent bias" (Bailey & Dawood, 1998, p. 10).

The problem with sampling bias has been remedied by more recent research that uses national twin registries like the one in Australia. For instance, Bailey, Dunne, and Martin (2000) used this registry of 25,000 twin-pairs and found only a 14 percent probandwise concordance for MZ twins and 11 percent probandwise concordance for DZ twins. This means that if one twin is homosexual, there is only a one in eight chance the brother will be homosexual. This rate is a far cry from the 40 percent to 50 percent concordance rates found in earlier studies using biased samples (also see Hershberger, 1997). Bearman and Bruckner (2002) used a large national sample of American adolescent twins and found only a 7.5 percent concordance rate for MZ twins and a 5.3 percent rate for DZ. Given error estimates of plus or minus 20 percent, such findings suggest that any similarity of sexual orientation between siblings is probably just a chance occurrence.

Another limitation is that "twin studies also tend to eliminate the effect of family life and upbringing" on sexual preference (Whitehead & Whitehead, 2008, p. 15). Yet "there is abundant evidence that the environments of MZ twins are much more similar than those of DZs" (Lewontin et al., 1984, p. 214). Identical twins are often dressed

alike and play together more than fraternal brothers; they are also treated more alike by teachers and peers and are therefore more likely to share the same environment. Thus, MZ twins are more alike not just because they share genes, but because they also share an environment. If pure genetics were the dominant factor in homosexuality, then the pairwise concordance rate for MZ twins should be close to 100 percent, but it is not. For this reason, these more recent twin studies indicate that the genetic influence is very weak.

The third type of study is known as gene linkage research. The name *gene linkage* comes from the fact that some genes are so close to each other on a chromosome that during meiosis (cell division) they are passed on together to the offspring. Such close-proximity genes are considered linked. If one of the genes has previously been identified, it is called the marker gene (MG); the other gene is called the trait gene (TG) or the candidate gene. Because the MG is linked to the TG and is passed on from parents to children, the MG can then be used to track the inheritance of a TG.

Dean Hamer and his colleagues (1993) noticed that some homosexual men had more homosexual uncles and homosexual cousins on the mother's side of the family than on the father's side. No homosexuals were found among the fathers of the homosexual men or among their paternal relatives. This result would be expected if the TG (e.g., for homosexuality) was carried on the X chromosome inherited from mothers. This phenomenon is known as pedigree analysis.

Hamer et al. (1993) then selected a subgroup of thirty-eight families in which each family had two homosexual brothers and some homosexuals on the maternal side but none on the paternal side. Blood samples were taken from all the homosexual brothers and a gene linkage analysis was done. Hamer's data indicated "a statistically significant correlation between the inheritance of genetic markers on the chromosomal region called Xq28 and sexual orientation" (p. 321). The results, however, were not strong. Brothers will normally have 50 percent of their genes in common, but in Hamer's study there was a 64.5 percent chance that the homosexual brothers would be similar in the Xq28 region of the X

chromosome. With this rather weak result, Hamer et al. claimed that at least one subtype of homosexuality was inherited from the mother and linked to the X chromosome.

Hamer et al.'s (1993) findings, however, have been criticized by several authors (see Baron, 1993). First, if homosexuality were a simple Mendelian trait (like eye color), then Hamer et al. should have found a higher incidence of homosexuality among brothers (it was only 13.5 percent). Second, there is no evidence that the Xq28 section of the chromosome is directly related to sexual behavior. The Xq28 region of the X chromosome may be related to some other yet unidentified trait common in the sample families. Rice, Anderson, Risch, and Ebers (1999) did a similar study with a larger sample (N = 52) and found no support for an X-linked gene underlying male homosexuality. Hamer et al.'s research methodology has been criticized by Risch, Squires-Wheeler, and Keen (1993) and, despite attempts, the results of Hamer et al.'s study have yet to be replicated (Dawood et al., 2009).

Another limitation of linkage studies is the absence of detailed socialization information, such as the family's sexual values and social and political ideology; the amount of exposure to erotic and pornographic media; the occurrence of mental illness; the incidence of abuse, incest, or neglect; and a detailed examination of the emotional health of the parent-child relationship. Unless environmental factors have been adequately measured, one cannot rule out family upbringing as a contributor to homosexuality. Research continues to fail to show that genetics is either a necessary or sufficient cause of homosexual behavior; rather, such behavior, like other complex human behavior, appears to result from nature-nurture interaction.

Hormones and Homosexuality

The effects of hormones on sexual orientation have also been studied to assess the possibility of genetic determinism (Odent, 2005). Hormones (from the Greek "to spur on") are powerful chemicals produced by endocrine glands—the hypothalamus, pituitary, thyroid,

ovaries, and testes—that circulate freely in the bloodstream and affect a wide range of cell structure and functioning (Johnson, 2007). The prenatal hormone hypothesis suggests that if a fetus is exposed to too many or too few sex hormones during prenatal (or even perinatal) development, this exposure will affect not only the internal and external genitalia, but also the brain—which may in turn influence gender identity and sexual orientation (Byne, 2007; LeVay, 1991). The theory suggests that a female fetus exposed to too much endogenous or exogenous androgens will have a higher chance of becoming lesbian, and a male fetus exposed to too little androgens will more likely self-report as homosexual than those with normal hormones levels (Veridiano, Vann, & Neuwalder, 1995).

The prenatal hormone hypothesis is impossible to test directly because hormone experimentation with humans is both unethical and illegal. Researchers can only take advantage of "natural experiments" in which pregnant women were inadvertently exposed to sex hormones or in which children were born with endocrine disorders, such as congenital adrenal hyperplasia (CAH) or androgen insensitivity syndrome (see Kaplan & Owett, 1993; Meyer-Bahlburg et al., 1995). In an example of research involving such children, Berenbaum and Snyder (1995) examined playmate preferences of twenty-four girls and nineteen boys with CAH. Girls with CAH preferred boys' toys and activities, but boys with CAH did not differ from the controls. While CAH may have some influence on sexual orientation, the possible mechanism for this effect is too complex to disentangle. Meyer-Bahlburg (1979) studied the hormone levels of lesbian and transsexual women; most had normal female hormone levels, but a third had slightly elevated androgen levels. The author concluded that prenatal or post-pubertal hormone levels "do not determine sexual orientation," but a "neuroendocrine predisposition cannot be ruled out" (p. 59).

However, there is ample evidence in animal studies (most often using mice) where androgen treatment of female fetuses in utero will produce male-type behavior in females, and that removal of normal fetal androgen secretion in male fetuses will produce female-type behavior (Habr-Alencar, Dias, Teodorov, & Bernardi, 2006). Birke (1981) has

questioned the validity of manipulating hormones in animal studies and then applying such findings to humans. He has concluded that there is insufficient support for the hypothesis that homosexuality is caused by endocrine abnormalities. Endocrinologist Louis Gooren (2006) concluded, "The mechanism of sexual differentiation in laboratory animals is clearly orchestrated by gonadal steroids; in humans the mechanism of brain sexual dimorphism [is] not yet certain . . . [and] we are far away from any comprehensive understanding of hormonal imprinting on [human] gender identity formation" (pp. 589, 593).

Various studies that have attempted to test the prenatal hormone hypothesis have proven inconclusive (Gooren, 2006). Banks and Gartrell (1995) concluded that "studies of testosterone levels have not shown a deficiency in male homosexuals or an excess in lesbians" (p. 263). Others disagree and interpret existing research as supportive of the prenatal hormone theory (see Rahman & Wilson, 2003; Wilson & Rahman, 2005).

To summarize this section, twin studies, adoption research, and linkage studies are inconclusive in demonstrating a direct deterministic link between a gene or genes and human homosexual behavior. The evidence suggests that while there may be some type of hereditary influence on homosexuality, the nature or degree of such influence is not known. Studies of hormone influence on sexual orientation are more suggestive of a biological—which is not the same as a genetic—link, but even these findings, as a whole, appear unconvincing at present (Byne, 2007; Gooren, 2006).

The American Psychological Association (APA) issued a new statement on the etiology of homosexuality in 2008. In a 1998 announcement, the APA had stated: "There is considerable evidence to suggest that biology, including genetic or inborn hormonal factors, play a significant role in a person's sexuality" (see Byrd, 2009). But in 2008, APA's pronouncement read:

> There is no consensus among scientists about the exact reasons that an individual develops a heterosexual, bisexual, gay, or lesbian orientation. Although much

> research has examined the possible genetic, hormonal, developmental, social, and cultural influences on sexual orientation, no findings have emerged that permit scientists to conclude that sexual orientation is determined by any particular factor or factors. Many think that nature and nurture both play complex roles. (APA, 2008, p. 2)

Thus, even the APA has backed off their earlier claim of direct genetic or hormonal causation of homosexual behavior.

Scientific Proof: Is It Possible?

All of this leads to a critical question: *If homosexuality were directly genetically or hormonally caused, how could science show this?*

To prove that genes cause homosexuality, scientists would first have to isolate candidate genes and then determine what proteins these genes manufacture. The action of these proteins on brain tissue, brain chemistry, or on some part of the endocrine system would then have to be established. Finally, if differences in brain or endocrine chemistry are consistently found between homosexuals and heterosexuals, then the potency (or strength) of those changes to predict homosexuality would need to be determined.

Two genetic concepts help explain gene potency: penetrance and expressivity. Gene penetrance is the probability that a gene will be expressed in a recognizable phenotype in the population. In other words, penetrance refers to how often a trait is expressed in people who have the gene for that trait. "Complete" penetrance means that everyone who has the gene will show the trait or behavior. "Incomplete" penetrance means that only some people who have the gene will show the trait or behavior. Gene expressivity is how much of a trait will be expressed in a particular person—whether the person is greatly, moderately, or only mildly affected by the gene. Expressivity means a trait may appear very pronounced, barely noticeable, or somewhere in between.

If genes for homosexuality were ever identified, these genes would probably demonstrate incomplete penetrance and mild expressivity. This means that some individuals who carry the suspected homosexual alleles would not become homosexual; others would show only minor to moderate symptoms of homosexual thoughts, feelings, and behaviors. In either case, the influence of environmental events and self-determination would also be needed to explain the development and expression of homosexuality.

Dr. Richard M. Lerner (2004) of Tufts University champions the inclusion of self-determination (agency and choice) as part of our understanding of any complex human behavior. "Humans are neither passive recipients of genes that compel their actions nor passive recipients of [environmental] stimuli that impel their behavior. Humans are active, acting, goal oriented effective shapers of the complex ecology of human development" (p. 64). There is no logical or empirical reason why the development of homosexual thoughts, feelings, or behaviors would be exceptions to Lerner's observation.

Part 4: The Threshold Model of Homosexuality

Another way that genetics has been hypothesized to play a role in homosexuality is called the *threshold model of homosexuality.* In general, the expression of a trait or condition requires a certain number of genetic influences and a certain number of environmental events to push the individual "over the threshold" from a common or typical to an uncommon or atypical physical or mental state. This situation has been described as an "accumulation of genetic and environmental liabilities" (DiLalla, 2004, p. 10; Gottesman & Goldsmith, 1994). In other words, some genes may be "susceptibility genes," which increase the chance of expressing the condition but which by themselves are not sufficient to produce the condition without some environmental trigger (Pericak-Vance, 2003).

Likewise, some environmental factors, like smoking, may put the individual at risk for developing a disease such as lung cancer but may not be enough to cause the sickness in a genetically robust person. For example, for a person to get lung cancer, he

or she may need a genetic vulnerability to cancer as well as environmental irritants such as smoking, secondhand smoke, severe air pollution, and/or high life stress.

Similarly, homosexuality may result from an accumulation of both genetic and environmental risks (Satinover, 1996). Suppose that at some time in the future scientists identify thirteen genes common among those who self-identify as homosexual. These may be genes related to emotional sensitivity, lack of physical prowess, artistic creativity, unconventional thinking, and late onset of puberty. We would then assume that these traits or behaviors appear as factors that likely increase the chances that a child may become homosexual (Satinover, 1996).

In addition, assume that there are some environmental factors that may increase the likelihood of a child becoming homosexual. For example, in a national cohort study of two million Danes, homosexual marriage was more likely in men with divorced parents or otherwise absent fathers (Frisch & Hviid, 2006). Several studies have shown that both boys and girls who have experienced sexual abuse or incest are more likely to become homosexual (Bradford, Ryan, & Rothblum, 1994; Paul, Catania, Pollack, & Stall, 2001; Tomeo, Templer, Anderson, & Kotler, 2001; Zucker & Bradley, 1995). Some research suggests that prolonged exposure to pornography may increase homosexual experimentation in some men (Morrison, Morrison, & Bradley, 2007; Parsons, Kelly, Bimbi, Muench, & Morgenstern, 2007). Research on the effect of media on behavior, however, is correlational, and direction of effect is ambiguous: does pornography increase sexual experimentation, or does sexual experimentation lead to use of pornography? But for illustrative purposes, father absence, sexual abuse, and pornography—singularly or in combination, may increase the likelihood of a boy's experiencing homosexual feelings or expressing homosexual behaviors. Other environmental traumas also may increase the chances of a homosexual outcome (Broman, 2003).

Now consider some fictional examples. Continuing the illustration above, imagine that Teen A (a male) has seven of the thirteen genes hypothetically found to be related to

homosexuality, and that he has experienced three of seven possible environmental factors associated with homosexuality (father absence, sexual abuse, and pornography). His total "risk" for homosexuality could be computed as 7 + 3 = 10. This total may be just enough to nudge Teen A over the threshold of a normative heterosexual orientation to a homosexual orientation.

Another person, Teen B (a female), has five genes correlated to homosexual behavior but has only experienced one environmental event, childhood sexual abuse. Her total risk would be computed as 5 + 1 = 6. In the case of Teen B, the accumulative risk of 6 may not be large enough to push her over the threshold from heterosexuality to homosexuality. This scenario is oversimplified and assumes that genes correlated with various elements of homosexual behavior will be found. However, it provides an illustration of how a threshold model might apply to a complex psycho-social-biological behavior like homosexuality.

In essence, the threshold theory of homosexuality is similar to Daryl Bem's (1996) interactional theory of homosexuality, a theory that combines the indirect effects of genetics with powerful environmental events. Bem hypothesized that genetic factors do not directly cause sexual orientation but do influence a child's temperament and activity level, which in turn influence the child's preferred friends, activities, and emotional responses. Such children may exhibit gender-nonconforming behaviors and may find themselves more comfortable with opposite-sex playmates. Yet they also may have a craving and longing for acceptance from and companionship with same-sex friends (Stein, 1999). Over time, same-sex peers are seen first as "exotic" and then as "erotic." Eventually, such youths may develop a sexual attraction to same-sex peers.

Conclusions

Except for rare physical abnormalities such as Huntington's disease, there is no evidence of a direct causative link between a single gene and complex psychosocial

behaviors such as homosexuality (Bazzett, 2008). This conclusion is supported by geneticists, molecular biologists, neuroscientists, and behavioral psychologists (Plomin, McClearn, McGuffin, & Defries, 2000). Behavioral psychologist Catherine Baker (2004) explained:

> Many people think that a gene controls a behavioral trait. This is genetic determinism, the belief that the development of an organism is determined solely by genetic factors. *Genetic determinism is a false belief*. It comes from misunderstandings of scientific research. . . . The fact is that so far, scientific research has not confirmed any one-to-one correspondence between a gene and a [complex] human behavior. Behavior results from the activity of multiple genes amidst the influence of multiple environmental factors. (pp. 17–18; my emphasis)

Many people take a simplistic view of behavioral genetics: they believe that one gene controls or determines one specific behavior. This false belief has led many people to think that there is an alcoholism gene, a manic-depression gene, an obesity gene, and a homosexuality gene. Such is not the case. Hubbard and Wald (1999) explained, "It is an oversimplification to say that any gene is 'the gene for a trait.' Each gene simply specifies one of the proteins involved in the complex process [of gene-environment interaction]" (p. 44). Valenstein (1998) neatly summarizes this idea:

> Most recent claims that a gene has been discovered that causes alcoholism, schizophrenia, [or] homosexuality . . . have proven illusory. . . . Genes do not produce behavioral or mental states. Genes carry the instructions and templates for producing and assembling amino acids and proteins into anatomical structures. Behavior and mental traits, however, are the product of an interaction between anatomical structure and experience. . . . Even where there is compelling evidence

> that some behavioral or mental trait is influenced by genetic factors it is almost always a predisposition, not a certainty. . . . A predisposition is not a cause. (pp. 140–141, 224)

At this time, the complex psycho-social-biological condition of homosexuality cannot be directly traced to the activity of a single gene or even to a group of genes (Parens, Chapman, & Press, 2006; Rutter, 2006). Geneticist Robert Plomin comments: "Genes do not act as master puppeteers within us. They are chemical structures that control the production of proteins, thereby indirectly affecting behavior. . . . Genes do not determine one's destiny" (Plomin et al., 1980, p. 13).

Baker (2004) makes the incontrovertible statement that "behavior results from the activity of multiple genes amidst the influence of multiple environmental factors" (p. 18). There is no direct path from a gene to a behavior; environment always intervenes (Turkheimer, 2002). And lest it be overlooked, human agency—free will and choice—plays a significant role in expression of complex psychosocial behaviors (Abbott & Bryd, 2009).

At present there is insufficient evidence to support the hypothesis that homosexuality is exclusively or primarily genetically determined. As F. S. Collins (2006), head of the Human Genome Project, states:

> There is an inescapable component of heritability to many human behavioral traits. For virtually none of them is heredity ever close to predictive. . . . An area of particularly strong public interest is the genetic basis of homosexuality. Evidence [indicates] that sexual orientation is genetically influenced but not hardwired by DNA, and that whatever genes are involved represent predispositions, not predeterminations. (p. 281)

Homosexuality is a very complex behavior that results from the dynamic interaction of multiple biological and environment influences that change over time (Diamond, 2008). Thus, any explanation of its etiology must involve the intricate interaction between genetic influences, environmental events, and self-determination or free will (cf., Allen, 2007; Garcia, Lerner, & Bearer, 2003; Pelle, 1995). Psychologist David Moshman (2005) concluded: "There is evidence that hereditary variations influence sexual orientation, but no evidence that any gene or set of genes causes a person to be homosexual" (p. 108). Edward Stein, author of *The Mismeasure of Desire: The Science, Theory, and Ethics of Sexual Orientation* and a pro-gay activist, concluded:

> Genes in themselves cannot directly specify any behavior or psychological phenomenon. Instead, genes direct a particular pattern of RNA synthesis, which in turn may influence the development of psychological dispositions and the expression of behaviors. There are many intervening pathways between a gene and a disposition or a behavior, and even more intervening variables between a gene and a pattern [of behavior] that involves both thinking and behaving. The terms "gay gene" and "homosexual gene" are, therefore without meaning. . . . No one has . . . presented evidence in support of such a simple and direct link between genes and sexual orientation. (1999, p. 221)

To this author, the scientific evidence is clear and unequivocal: *Homosexual behavior is not directly caused by genetic processes*. No matter how strongly some people want to believe that homosexuality is genetically determined, science fails to support this belief. Those who continue to push and prod science to discover a genetic explanation of homosexual behavior fail to recognize that in almost all instances of complex psychosocial behavior, *DNA is not destiny* (Barr, 2003; Church, 2009; Cloud, 2010; Garcia et al., 2003; Shenk, 2010).

Footnotes

[1] Some additional definitions may be required to understand twin studies. A *proband* is the person within a specific family who has a preselected trait or condition of interest (such as autism, schizophrenia, or homosexuality). Concordance is the probability that the second twin will have the same trait or condition as the first twin. In concordant twins, both have the trait while in discordant pairs only one twin has the trait. Suppose you have twenty preselected identical twin pairs where one twin self-identifies as homosexual, and in ten pairs the second twin self-identifies as heterosexual. The pairwise concordance rate is equal to the number of concordant pairs (ten, designated as C) divided by the number of concordant pairs (designated as D) plus the number of discordant pairs (10 / 10 + 10), so the pairwise rate is C/(C + D) or 10/20, which equals 50 percent. Probandwise concordance rate is different; it estimates an individual's probability of having a specific trait or condition if the person's twin has the trait or condition. It is preferred by most geneticists as a more accurate estimate of genetic influence on the trait and is calculated differently as 2C/(2C + D). In this case it would be 2x10/(2x10 + 10), which equals 66 percent.

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Dual-Gender Parenting for Optimal Child Development

By A. Dean Byrd*
University of Utah, Salt Lake City, UT

* A. Dean Byrd, Ph.D., MBA, MPH, is president/CEO of the Thrasher Research Fund and Faculty, University of Utah School of Medicine with appointments in the Department of Family and Preventive Medicine and in the Department of Psychiatry. He is adjunct professor of family studies, also at the University of Utah.

Abstract

All family forms are not equally as helpful or healthful for children. More than two decades of research demonstrate that children do better in a home with a married mother and father. Children in this one family form navigate the developmental stages more easily, are more solid in their gender identities, perform better in academic tasks, have fewer emotional disorders, and become better functioning adults. This conclusion clearly makes a strong case that gender-linked differences in child-rearing are protective for children. Men and women do indeed contribute differently to the healthy development of children.

Introduction

The claim, most recently made by researcher Judith Stacey (quoted in Wiley-Blackwell, 2010), that "the gender of parents only matters in ways that don't matter" has no basis in science. Dual-gender parenting is the most healthful family form in which to nurture and rear children, a fact that has been evidenced by decades of social science research—beginning with the extensive research on children reared in single-parent families.

The most authoritative evidence on children growing up in single-parent families (most often headed by single mothers) concluded that such children are more likely to suffer abuse, twice as likely to drop out of high school, 1.4 times more likely to be idle (out of school and out of work), 3 times more likely to have a child out of wedlock, and 2.5 times more likely to be teen mothers. If we follow this data further, another picture emerges. For children born out of wedlock and raised by single parents, the chance of living in poverty is 5 times greater than for children who grew up in intact families (McLanahan & Sandefur, 1994). There is also 2 to 3 times the probability of having psychiatric problems during adolescence (Popenoe, 1996). Lest one might suggest that the lower socioeconomic level in single-parent households alone accounts for such statistics, these conclusions were reached after adjustments for income-related variables such as race, sex, mother's/father's education, number of siblings, and place of residence (McLanahan & Sandefur, 1994).

Following this one statistic even further, children who are born out of wedlock to single teen mothers are more likely to engage in early sexual activity, which poses a great danger for adolescent health. Adolescents account for more than 25 percent of all sexually transmitted diseases (STDs) nationally; within that statistic, women are twice as likely as men to acquire gonorrhea, chlamydia, and hepatitis. Many STDs generate increased risk of developing certain cancers, becoming infertile, and contracting HIV upon exposure. Tragically, STDs are often passed on by women to their children at birth (Popenoe, 1996).

While it is true that there are cases in which children reared by single parents do well, such cases are the exception rather than the rule. The evidence on the substantial majority of children reared in single-parent homes is very clear: this one family form places children at substantial risks for many negative outcomes (Popenoe, 1996).

Is Dual-Gender Parenting Protective for Children?

There is no fact that has been established by the social science literature more convincingly than the following: All variables considered, children reared in a home with a married mother and father are better served. David Popenoe (1996) summarizes the research nicely when he writes that

> social science research is almost never conclusive . . . yet in three decades of work as a social scientist, I know of few other bodies of data in which the weight of evidence is so decisively on one side of the issue: on the whole, for children, two-parent families are preferable to single-parent and step-families. (p. 176)

Research showing that children do better when they are raised by their biological father and mother does not document that all children reared in biological families meet with success, nor does it assert that all children deprived of one parent are doomed to failure (Biller, 1993). Some children still struggle in a dual-gender parent family environment, and some children are contentedly reared to adulthood by a wholly committed single parent. But such exceptions in no way deny the overwhelming findings of robust research that supports dual-gender parenting.

Children navigate the developmental stages more easily, are more solid in their gender identity, perform better in academic tasks at school, have fewer emotional disorders, and become better functioning adults when they are reared by dual-gendered parents. This conclusion is supported further by a plethora of research spanning decades

that clearly demonstrates gender-linked differences in child-rearing that are protective for children. In other words, men and women contribute differently to the healthy development of children.

Children in traditional, dual-gender families are more competent (Baumrind, 1982). Research has repeatedly supported the conclusion that the most effective parenting is both highly expressive and highly demanding (Baumrind, 1991). This highly expressive, instrumental parenting provides children with a kind of communion characterized by inclusiveness and connectedness, as well as the drive for independence and individuality. These essential contributions to the optimum development of children are virtually impossible for a man or woman to make alone (Greenberger, 1994). In addition, children learn about male-female relationships through the modeling of their parents. Dual-gender parental relationships provide children with a model of marriage—the most meaningful relationship that the vast majority of individuals will have during their lifetimes.

Gender Complementarity

Complementarity is readily observable in the different parenting styles of mothers and fathers. Not only are fathers' styles highly complementary to those of mothers, but research indicates that the fathers' involvement in the lives of children is essential for optimal child-rearing. For example, this complementarity is provided by mothers who are flexible, warm, and sympathetic, and fathers who are more directive, predictable, and consistent. Rossi's research (1987) noted that mothers are better able to read an infant's facial expressions, handle with tactile gentleness, and soothe with the use of voice. Fathers tend to emphasize overt play more than caretaking—and this play, which occurs in various forms, appears critical for later development (Yogman, 1982).

The Cabrera, Tamis-LeMonda, Bradley, Hofferth, and Lamb (2000) summary of the research on a father's unique contributions to the healthy development of children is worth quoting at length:

Children may benefit from interacting with two involved parents, and may profit from interacting with people who have different behavioral styles. Some researchers have argued that this stylistic difference is gender based (Popenoe, 1996). Fathers' biological and socially reinforced masculine qualities predispose them to treat their children different than do mothers. For example, fathers are more likely than mothers to encourage their children to be competitive and independent and to take risks. . . .

Fathers' emotional investment in, attachment to, and provision of resources for their children are all associated with the well-being, cognitive development, and social competence of young children even after the effects of such potentially significant confounds as family income, neonatal health, maternal involvement, and paternal age are taken into consideration (Amato & Rivera, 1999; Yogman, Kindlon, & Earls, 1995). In addition, fathers have been found to be important players in the development of children's emotional regulation and control (Gottman, Katz, & Hooven, 1997). During middle childhood, paternal involvement in children's schooling in both single-father and two-parent families is associated with greater academic achievement and enjoyment of school by children (Nord, Brimhall, & West, 1997). For both resident and non-resident fathers, active participation in their children's lives, rather than simply the amount of contact, appears to be formatively important (Nord et al., 1997). In adolescence, too, stronger and closer attachments to resident biological fathers or stepfathers are associated with more desirable educational, behavioral, and emotional outcomes (Furstenberg & Harris, 1993). High involvement and closeness between fathers and adolescents, rather than temporal involvement per se, protect adolescents from engaging in delinquent behavior and experiencing emotional distress (Harris, Furstenberg, & Marmer, 1998). Thus, both quantity and quality of father involvement combined into the concept of "positive paternal involvement" result in positive child outcomes. (p. 130)

Not every mother or every father has fully developed all of these specific sex-differentiated characteristics. For example, not all fathers are endowed with a temperament suited for discipline, and not all mothers are endowed with a temperament suited for nurturing. However, most fathers and mothers are vulnerable to these sex-specific talents related to parenting, and societies should support parenting roles that take advantage of these gender-related skills and contributions (Wilcox, 2007). The complementarity of male and female parenting styles is of enormous significance to a child's overall development.

Marissa Diener and colleagues demonstrated that twelve-month-old babies who have a close relationship with their fathers seemed more stress-resistant than those who did not. Babies who had secure relationships with their fathers used more coping strategies than those who did not (Diener, Mangelsdorf, McHale, & Frosch, 2002). Their conclusion has fascinating implications: "there may be something unique to fathers that provides children with different opportunities to regulate their emotions" (Broughton, 2002, p. A1).

Male and female differences also emerge in the ways in which infants are held and the differential ways in which mothers and fathers use touch with their children. Mothers more frequently use touch to calm, soothe, or comfort infants; when a mother lifts her child, she brings the child toward her breasts, providing warmth, comfort, security, and protection. Fathers more often use touch to stimulate or to excite the child; they also tend to hold infants at arm's length in front of them, make eye contact, toss the infant in the air, or embrace the child in such a way that the child is looking over the father's shoulder. Shapiro notes that each of these "daddy holds" underscores a sense of freedom (Shapiro, 1994).

Clarke-Stewart (1980) reported differences in mothers' and fathers' play. Mothers tend to play more at the child's level; they also provide an opportunity to direct the play, to be in charge, and to proceed at the child's pace. Father's play tends to resemble teacher-student relationships—apprenticeships of sorts—and is more rough-and-

tumble. In fact, the lack of this rough-and-tumble play emerges disproportionately in the backgrounds of boys who experience gender-identity disorders (Bem, 1996; Hamer & Copeland, 1994; Rekers, 1995).

Benefits of rough-and-tumble play have appeared in child development areas extending from the management of emotions to intellectual and academic achievement. Interestingly enough, fathers' play is related to the development of socially acceptable forms of behaviors and does not positively correlate with violence and aggression, but rather correlates with self-control. Children who roughhouse with their fathers quickly learn that biting, kicking, and other forms of physical violence are not acceptable. These children also learn how to recognize and manage highly charged emotions in the context of playing with their fathers, and such play provides children with opportunities to recognize and respond to emotions appropriately (Cromwell & Leper, 1994).

Combining his own research with that of others, Parke (1996) concluded that play provides important learning for children, particularly in teaching social competence, and that fathers are more geared to physical play with their children than are mothers. On average, fathers spend a greater proportion of their time with infants engaged in play. Father's play is more physically stimulating and more unpredictable and provides a unique learning environment for the infant child (Parke, 1996).

There are also gender differences in parental approaches to discipline. The disciplinary approach of fathers tends toward firmness, relying on rules and principles. The approach of mothers tends toward more responsiveness, bargaining, and adjustment toward the child's mood and context, and is more often based on an intuitive understanding of the child's needs and emotions of the moment. Gilligan (1994) concluded that the differences between paternal and maternal approaches to discipline are rooted in the fundamental differences between men and women in their moral senses—men stress justice, fairness, and duty based on rules, while women stress understanding, sympathy, care, and helping based on relationships.

The critical contributions of mothers to the healthy development of children have long been recognized. There is no reputable psychological theory or empirical study that denies the critical importance of mothers in the normal development of children. Recent research validates the importance of fathers in the parenting process as well. For example, Pruett (1987) concluded that six-month-old infants whose fathers actively played with them had higher scores on the Bailey Test of Mental and Motor Development. Parke (1981) noted that infants whose fathers spent more time with them were more socially responsive and better able to withstand stressful situations than infants relatively deprived of substantial interaction with their fathers.

A second female cannot provide fathering. In fact, McLanahan and Sandefur (1994) found that children living with a mother and grandmother fared worse as teenagers than did those adolescents living with just a single parent. Biller (1993) has concluded that men who were father-deprived in life were more likely to engage in rigid, over-compensatory, masculine, aggressive behaviors later. His research, based on more than 1,000 separate sources, has demonstrated repeatedly the positive effect of fathers on children and has indicated quite clearly that mothers and fathers are not interchangeable. His research concludes:

- Paternal and maternal differences are stimulating for the infant, as they provide contrasting images via differences in a mother's and father's dress, their movements, and even their voices. Because of these differences, infants may prefer mothers when they want to be consoled or soothed and fathers when they want stimulation.
- These differences are important sources of complementary learning for children.
- Where there are strong parental attachments, infants are at a decided developmental advantage compared to those infants who had only close maternal relationships.

- Fathers who are involved with their children stimulated them to explore and investigate, whereas mothers focused on pre-structured and predictable activities.

Parental relationships seem particularly important for boys during the second year of the child's life, a time when boys become more father-focused. Unlike boys, girls do not seem to have this consistent focus during this developmental period (Biller, 1993).

Biller's (1993) research demonstrates clearly the importance of mothers and fathers to the healthy development of children, not only in their unique maternal and paternal contributions, but also in the complementary nature of those contributions. The following conclusion aptly summarizes his research:

> Infants who have two positively involved parents tend to be more curious and eager to explore than those who do not have a close relationship with their fathers. . . . Well-fathered infants are more secure and trusting in branching out in their explorations, and they may be somewhat more advanced in crawling, climbing and manipulating objects. (p. 16)

Pruitt (1993) has summarized the work of Erik Erikson, who noted that mothers and fathers even love differently. The love of fathers is characterized by instrumentality and more expectations, whereas mothers are more nurturing, expressive, and integrative. Mothers nurture, and fathers negotiate. Mothers do negotiate, but typically on the child's level, while fathers negotiate with "an upper hand." Fathers focus on extrafamilial relationships, social skills, and developing friendships. Adolescents who have affectionate relationships with their fathers have better social skills, exude more confidence, and are more secure in their own competencies. When there is a father present in the home, there are also lower incidences of adolescent sexual involvement (Pruett, 1993).

What are the consequences when fathers are not present? Alfred Masser (1989), a psychiatrist at Northside Hospital in Atlanta, Georgia, has noted that children who seek psychiatric help are more often suffering from "father hunger"—the unmet need for a physically and psychologically present, available, involved, caring, and kind father.

Blankenhorn (1995) has concluded that father hunger is the primary cause of the declining well-being of children in our society and is associated with social problems such as teenage pregnancy, child abuse, and domestic violence against women.

Researchers have consistently and overwhelmingly found that fathers are critical for the intellectual, emotional, and social development of children (Popenoe, 1996). From the research, Parke (1996) concluded that fathers are important in helping children to read social cues and to regulate emotions that influence social adjustment to positive peer relationships. Parke noted, "Although there is often overlap between mothers and fathers, this study showed that fathers make a unique contribution independent of the mothers' contribution to their children's social adjustment" (p. 139).

Researchers surmise that a father's expectations regarding future roles for his child have a powerful effect on the child's cognitive ability (Wardle, 1997). Popenoe's (1996) review of the research reveals a number of such effects. Father involvement has been linked with superior quantitative and verbal skills, enhanced problem-solving ability, and improved academic achievement in children. The presence of the father in the home also has been shown to be one of the determinants of mathematical proficiency in girls (Popenoe, 1996). And the amount of time fathers spend reading to their daughters has been observed as a strong indicator of the daughters' verbal ability (Poponoe, 1996). As Popenoe points out, "fathers who are highly committed to child-rearing, have flexible views regarding sex roles for themselves and their children, and express interest, involvement, and encouragement [which] likely will enrich their daughters' cognitive functioning" (p. 148).

A positively involved father increases the likelihood of a child developing a healthy body image, self-esteem, moral strength, and social competence (Lamb, 1997).

Numerous studies suggest that fathers contribute profoundly to children's development by influencing central components of children's self-identities, self-confidence, and self-regulation (Rekers, 2004). Children with nurturing, involved, and committed fathers are markedly more successful in their academic, athletic, and social activities and have higher self-esteem than do those who suffer from father absence (Rekers, 2004).

Fathers also seem to have an impact on the emotional well-being of their children. Videon (2005) examined the influence of father-adolescent relationships on depression in more than 6,500 boys and girls. She found that higher levels of satisfaction with the father-adolescent relationship correlated with fewer depressive symptoms among both boys and girls.

Using a probability sample of 4,987 adolescents, Dorius, Bahr, Hoffman, and Harmon (2004) examined "the degree to which closeness to [the] mother, closeness to father, parental support, and parental monitoring buffer the relationship between peer drug use and adolescent marijuana use" (p. 163). The researchers concluded that "the relationship between peer drug use and adolescent marijuana use was attenuated by both closeness to father and the perception that parents would catch them for major rule violation" (p. 163).

In a longitudinal study, Harris et al. (1998) followed a cohort of children into adolescence and early adulthood and found that fathers' involvement significantly influenced the economic and educational attainment of youth and resulted in lower rates of delinquency. They also found that fathers' emotional closeness was associated with positive social behavior, less distress, and greater psychological well-being during the transition to adulthood, as well as less premarital adolescent sexual behavior. These effects were independent of the effects of the mothers' influence.

In one of the largest studies of its kind, Wright (2005) retrospectively examined the medical records of 168,113 adolescents who had been treated for more than four years in a national behavioral health provider network. Prior to beginning the treatment,

61 percent of the males and 23 percent of the females were taking psychotropic medication for ADD/ADHD that had been prescribed by a psychiatrist, a pediatrician, or a primary-care physician. The majority of all the adolescents came from single-parent homes; most lacked an effective father figure and/or were exposed to negative and often abusive male role models. Behavioral interventions involved a sympathetic but firm male therapist and the introduction of positive male role models—such as fathers, Big Brothers, coaches, and Sunday school teachers—into the adolescent's life. Despite the very strict requirements for discontinuing the medication, the results were dramatic. After an average of six therapy sessions with the children, the percentage of boys on medication decreased from 61 percent to 11 percent, and the percentage of girls on medication was reduced from 23 percent to 2 percent.

Another area where both fathers and mothers seem to exert strong influences is the area of gender identity. Children seem to have the best chance of developing healthy sexual identities when they are raised by dual-gender parents (Knight & Daniel, 2005), since both boys and girls form their sex roles from their associations with both genders. Knight and Daniel conclude, "Boys need fathers so they can develop their own sexual identities; they need mothers so they can learn how to interact with the opposite sex" (p. 5). Girls need mothers so they can learn what it is to be a woman; they need fathers so they know how to interact with the opposite sex. Researchers have concluded that fathers have a greater impact on gender role adjustment of both boys and girls than do mothers, because fathers typically emphasize preparing children for their various roles in society (Rekers, 2004).

Through identification and imitation, boys learn from their fathers what they cannot learn from their mothers—how to be a man. The transition from boyhood to manhood is a difficult process; as boys grow up, they must necessarily leave the comforting female protection provided by their mothers. Boys learn through interactions with their fathers about male responsibility, about how to be assertive and self-sufficient, and about how to interact acceptably with members of the opposite sex (Popenoe, 1996).

Girls learn from their fathers how to relate to men and learn about assertiveness, achievement, independence, and heterosexual trust and intimacy (Popenoe, 1996). A positively involved father provides girls with a steady relationship of love and respect from an adult male who will not exploit them, thereby equipping them with a security and trust that helps them avoid precocious sexual involvement and exploitative relations with other males (Rekers, 2004). Girls raised in single-parent homes are more apt to become sexually active and are exceptionally vulnerable to males who treat them poorly (Rekers, 2004).

Mothers are important in providing a sex-role model for their daughters and seem to exert a greater influence in this area of gender role development (Mead & Rekers, 1979). Hart, DeWolf, Wozniak, and Burts (1992) concluded that mothers have strong effects on the development of pro-social behavior such as cooperative peer behavior, which develops when mothers reason with children about the consequences of their actions.

In spite of the overwhelming evidence citing the importance of mothers and fathers to the healthy development of children, attempts have been made in the professional literature to blur the lines between genders and to claim that neither mothers nor fathers are necessary for positive outcomes in children. Such research reports have become increasingly bold with their activist agendas; a good example is the article "Deconstructing the Essential Father," in which Silverstein and Auerbach (1999) argue that "neither mothers nor fathers are essential to child development and that responsible fathering can occur within a variety of family structures" (p. 397). The authors of the article used the offspring-raising habits of soft-furred, tree-dwelling South American monkeys to support their view that other parenting forms lead to positive child outcomes. They state, "Marmosets illustrate how, within a particular bioecological context, optimal child outcomes can be achieved with fathers as primary caregivers and limited involvement by mothers" (p. 400). Silverstein and Auerbach apparently fail to realize that no animal models approximate the human family, and that rearing a child is significantly more complicated than raising a marmoset.

Moreover, in this author's opinion, the interpretation of such research and its use in advocacy is overwhelmingly influenced by bias. Many of the existing studies that find no difference among children of the various family forms have evident limitations, such as small sample sizes, non-representative and self-selected samples, and reliance on self-reporting, which is subject to social desirability prejudices. The advocates of these studies often downplay these limitations and frequently fail to contemplate the potential importance of having both male and female nurturers and role models (Schumm, 2010).

From the extensive research spanning decades, the importance of mothers to the healthy development of children is irrefutable. Recent research has provided clear and compelling evidence of the importance of fathers to the healthy development of children. The evidence is equally convincing regarding the consequences of father absence and its relationship not only to the severe difficulties in the lives of children, but of its societal costs as well. What is less clear are the consequences of "mother hunger"—one can only imagine.

Conclusion

The research is clear: Mothers and fathers are essential for optimal child-rearing. Hart (1999) has concluded that mothers and fathers contribute in unique, complementary ways to the healthy development of children. Parke's review (2004) of the recent research highlights the evidence that mothers, fathers, and children "influence each other both directly and indirectly" (p. 365). The gender complementarity that results from dual-gender parents affords children the opportunity to thrive in the best possible environment. Other family forms are not equally as helpful or healthful for children, and substantial research demonstrates the negative effects of physical and psychological father absence.

The contribution of gender complementarity to child-rearing is deeply rooted in the innate differences between men and women. Harvard sociologist Pitirim Sorokin (1956) concluded that no society in history has ceased to honor the institution of

marriage—and with it dual-gender parenting—and survived. Traditional marriage and parenting contribute to the fulfillment of life's meaning and to the well-being of both individuals and society in ways that nontraditional forms do not—and cannot.

Regarding gender complementarity and child-rearing, *tradition and science agree: Both mothers and fathers provide optimal development for children*. *Children's needs must be placed first*. The deliberate placement of children in settings that are motherless or fatherless begins a slippery slope, one filled with risks that neither children, their families, nor society can afford to take.

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Homosexuality and Co-Morbidities: Research and Therapeutic Implications

By Neil E. Whitehead*

Lower Hutt, New Zealand

* Neil E. Whitehead earned a Ph.D. in biochemistry in 1971 at Victoria University of Wellington, New Zealand. He has been employed as a scientist with the New Zealand government (24 years) and the United Nations (4 years), and more recently as a scientific research consultant. He has authored more than 100 professionals papers while living and working in New Zealand, India, the United States, France, Japan, and Afghanistan.

Abstract

Clients who present to therapists with unwanted same-sex attraction (SSA) often have co-occurring problems. Reliable surveys in a survey of the literature show that a score of mental health conditions in almost every DSM category are present in the general SSA population at rates three or more times greater than in the opposite-sex attraction (OSA) population. These conditions include bipolar disorder, obsessive-compulsive disorder, and schizophrenia, but more predominantly consist of mood disorders, depression, substance abuse, and suicidality. All need particular attention from therapists.

People reporting SSA have a more widespread and intense psychopathological burden than probably any other group of comparable size in society, though college-age people may have more substance abuse problems. The reversed gender pattern of these conditions suggests some link with SSA itself. Surveys in recent literature suggest that *perceived* discrimination rather than objective discrimination is to blame for suicidality. Recent literature also finds that particular emotion/avoidant-based coping mechanisms used by people reporting SSA almost entirely account for the effects of this perceived discrimination.

Statistical analysis suggests that therapists should not assume that their therapies will create undue suicidality, but they should nonetheless maintain normal vigilance.

Introduction: Context of This Paper

The American Psychological Association (APA) has publicly asserted that there is no evidence that therapy for same-sex attraction (SSA) works. On the contrary, the association asserts that such therapy has a risk of harm; it also asserts that there is no evidence for greater pathology associated with homosexuality, which it believes negates the need for intervention. Members of the National Association for Research and Therapy of Homosexuality (NARTH Scientific Advisory Committee, 2009) prepared a comprehensive review to examine these claims; the present paper is an update, focusing mostly on the question of greater pathology among SSA people and its implications for therapists. The literature demonstrates that pathology as defined by the DSM is very widespread among people with SSA.

The nomenclature for homosexuality continues to be cumbersome. The literature uses a variety of terms—including SSA, MSM, WSW, homosexual, gay, bisexual, lesbian, GLB, and variants of these—to describe people who are attracted to and/or have sexual relations with members of the same gender. These people may be defined in the literature based on attraction only, on self-identity, or on actual behavior. Since attraction is commonly considered most fundamental, this paper will use SSA to define those who are same-sex attracted. Where a cited paper uses other terms that have a meaning important for the context, those terms are used for clarity.

When examining the mental health of SSA people, Bailey (1999) commented that historically those who belonged to SSA interest groups appeared to be healthy, while those who were seeing therapists and clinicians appeared to be sick. This is an obvious case of sample bias affecting the results. Reliable statements about the SSA population as a whole depend on good random samples; the papers cited here, most from 1998 or later, use those dependable random samples. Limitations are stated as appropriate.

This paper frequently refers to numbers that are odds ratios (OR). OR express how much more frequently the SSA group contains the specified condition than do

members of a properly sampled OSA group. If a paper gave an OR of 3 for suicidality in an SSA sample, that means three times as many attempted suicides occur in the SSA group as occur among the OSA group.

In these studies it is useful to note the epidemiological rule of thumb: An OR of 3 with adequate statistical significance is quite high. This difference is so great that another similar study will almost certainly confirm it within a margin of error. An OR of 2 means the findings will be probably be confirmed by another study. Obviously, then, the OR data in this paper are solid enough to be trusted.

This paper generally presents only those studies that found a statistically significant difference. Small differences when compared to the control groups may still exist. Non-significant differences are labeled as "NS." Unless explicitly stated, a mental health issue for gay men may not apply to lesbians, and vice versa.

The categories and correct diagnostic procedures for disorders were taken from the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-IV-R, American Psychiatric Association, 2000) as applicable. Individual details are in the cited papers.

These results could be quite discouraging to those with SSA. These people should realize that change of many types is taking place during therapy—and even outside of therapy—in spite of any conditions that may exist alongside SSA. The major categories of co-occurring conditions include substance abuse and depression, which affect most of the general population at some time to a greater or lesser degree.

The following material contains visual representations not strictly necessary for those used to handling the statistical numerical data. The reader's indulgence is requested.

In the histograms that follow, the word *homosexual* is occasionally used to define a combination of gay and lesbian people. The comparison is to heterosexuals, who are assigned a histogram bar length of 1.0. Other control groups are similarly assigned a histogram bar length of 1.0.

One overall finding is worth noting: among heterosexuals, the most typical mental health issues are mood disorders for women and substance abuse issues for men. These are reversed in SSA people, a phenomenon that will be further discussed in the paper.

Odds Ratios Results

The conditions that follow are given in approximate order of ascending OR.

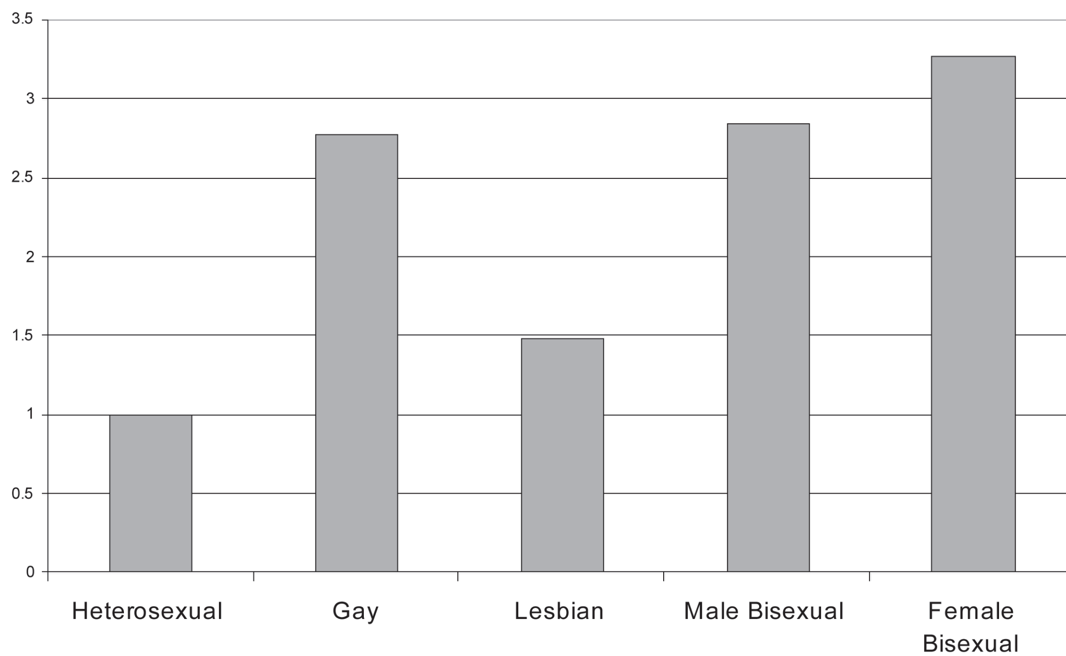

Figure 1. Mood Disorders, OR 2.78 SSA men, 1.48 SSA women (Tjepkema, 2008; Canada). Bisexual for male and female from the same reference is also given.

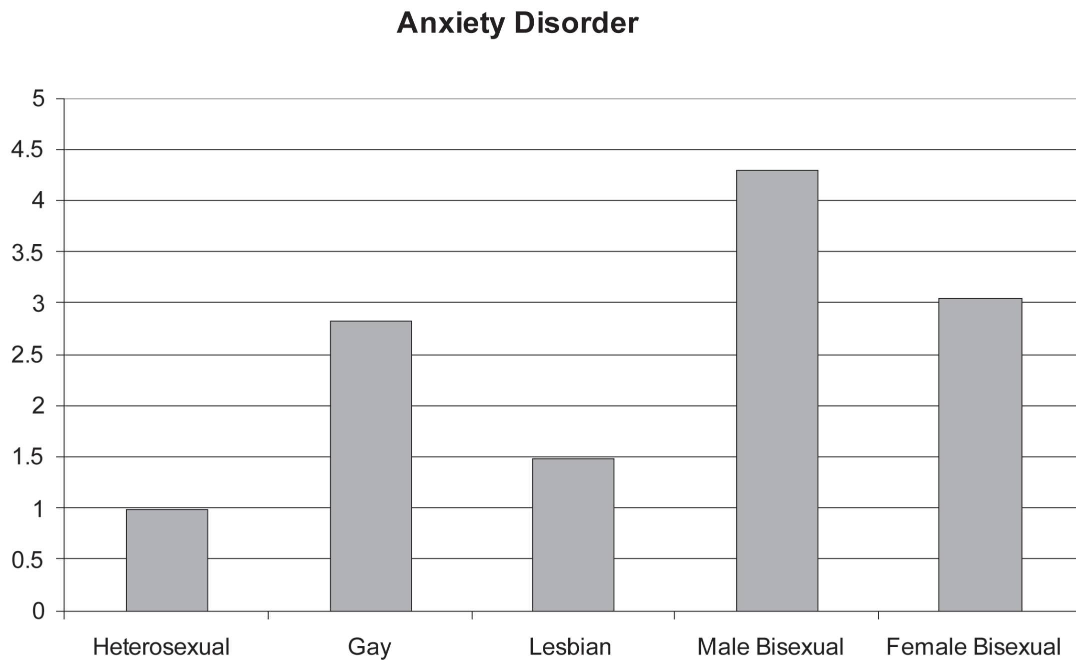

Figure 2. Anxiety Disorder, OR 2.83 men, 1.50 women (Tjepkema, 2008; Canada).

Both surveys were conducted by StatCanada and are considered to be very high quality. The bisexual figures tend to be highest.

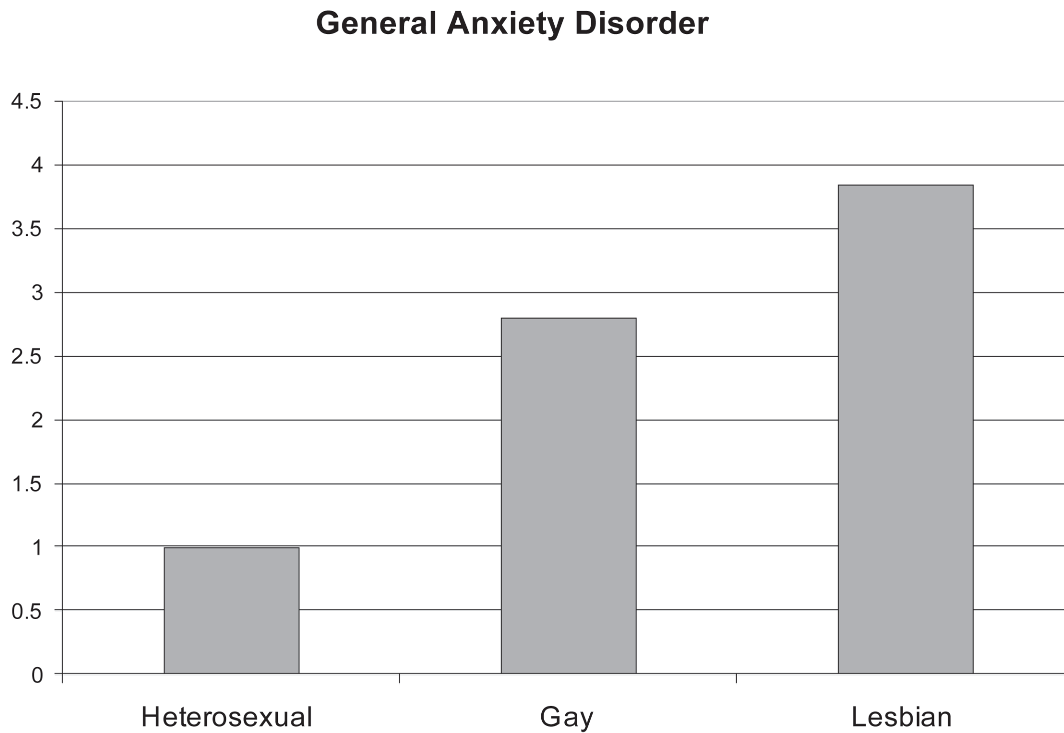

Figure 3. Generalized Anxiety Disorder, OR 2.8 men, 1.2–6.5 women. The figures for women are a range for a variety of diagnostics; in this paper means will be plotted (Fergusson, Horwood & Beautrais, 1999; New Zealand longitudinal study).

These results are reasonably close to those in Figure 2, even though New Zealand and Canada are geographically distant.

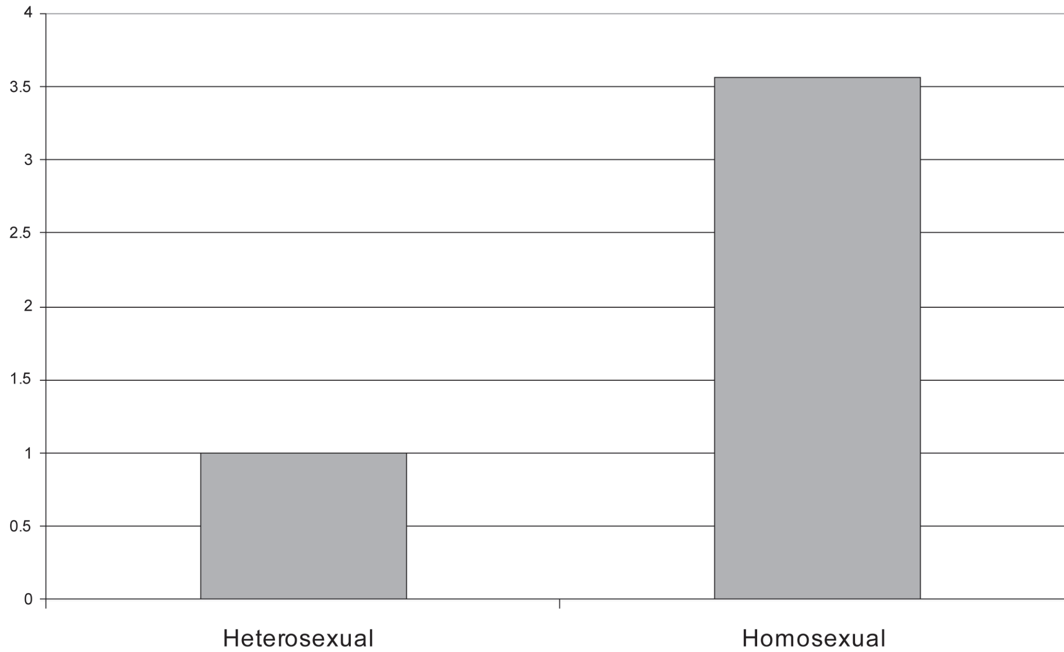

Figure 4. Depression, OR 3.5 (Cochran, Sullivan, & Mays, 2003; United States).

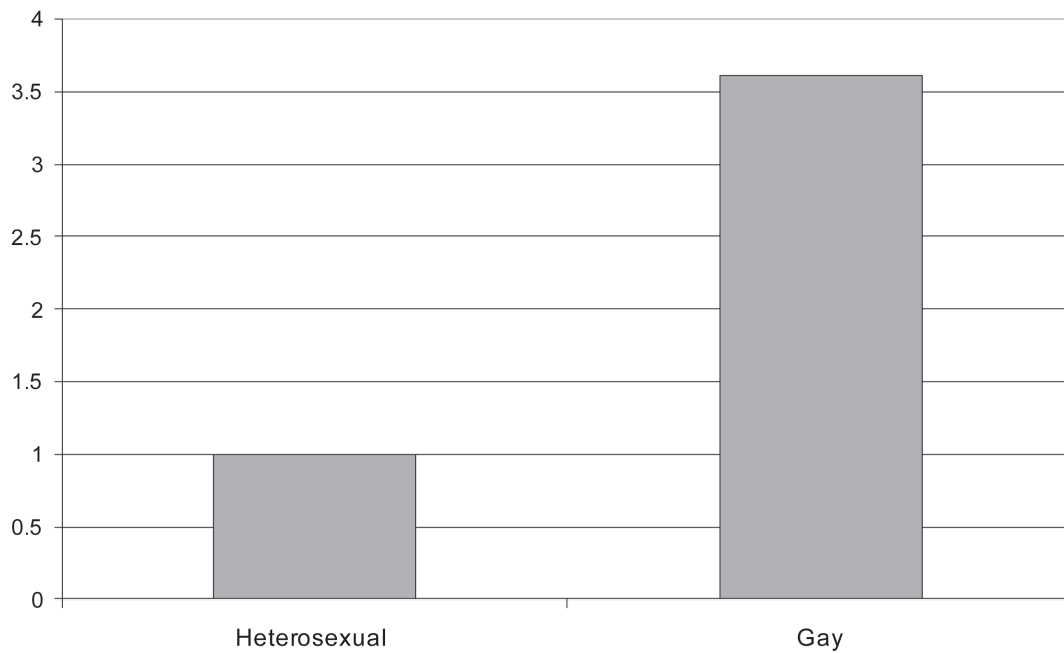

Figure 5. Simple Phobia, OR 3.61 men, 1.27 (NS) women; latter not plotted (Cochran et al., 2003).

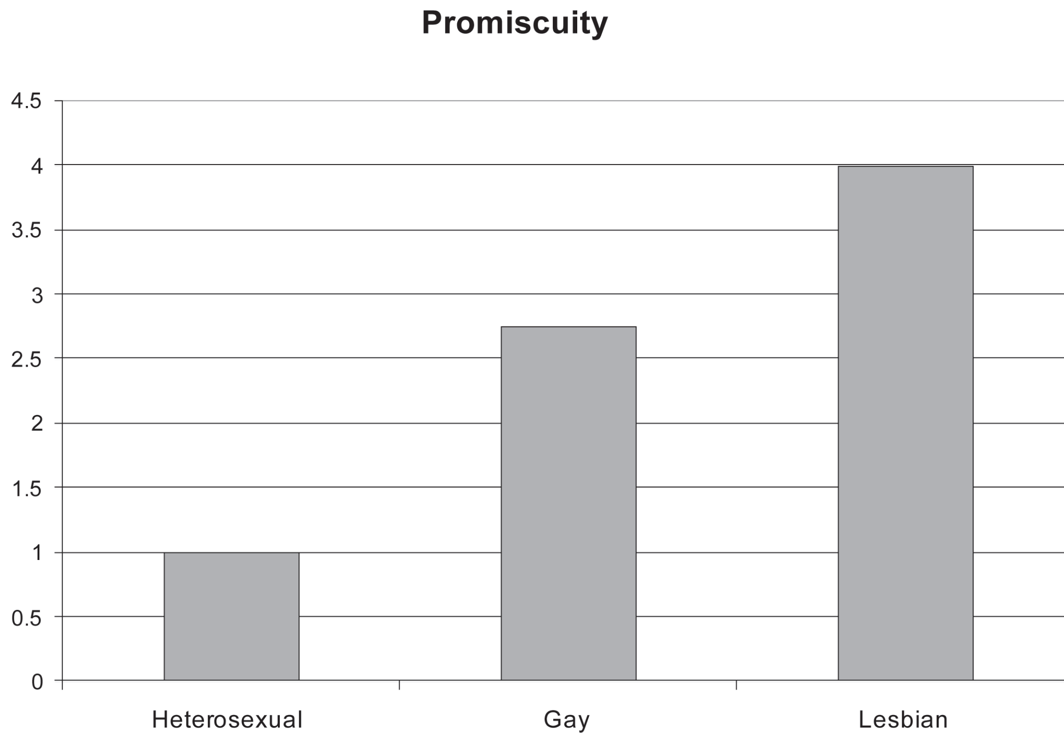

Figure 6. Promiscuity, OR 2.75 men, 4 women (Laumann, Gagnon, Michael, & Michaels, 1994; United States). Medians are used. The issue is whether hypersexuality exists; a later discussion on sexual compulsivity indicates this is likely.

This data is confirmed by a survey on promiscuity in the UK (Mercer, Hart, Johnson, & Cassell, 2009); the survey took place 1999–2001 and involved 5,168 men. During the five years preceding the survey, the median number of partners for heterosexual, bisexual, and exclusively homosexual men were 2, 7, and 10, respectively. The bisexual men had 3.5 times the number of partners as did the heterosexual men; among exclusively homosexual men, the number was 5 times as many partners as with the heterosexual men.

It should be noted that among young heterosexual people, particularly girls, early romantic involvement leads to depression (Davila et al., 2009; Sabia & Rees, 2008). Depression also predicted sexual involvement, indicating a kind of vicious circle. One

interpretation could be that failing to find the ideal partner even after many attempts might lead to depression. This mechanism might also apply to those with SSA, who tend to be sexually involved at younger ages than their heterosexual counterparts.

Partner Interpersonal Violence

The issue of violence between partners is particularly controversial and conceptually complex. Most of the samples have not been truly random or have been equivocal about sex or the relationship of the perpetrator. It's interesting to note that the better the sample, the lower the ORs seem to be. The most truly random samples with the most detailed results seem to be those reported by Tjaden, Thoennes, and Allison (1999, United States); therefore, those are the results predominantly used in this paper. Both marriage and cohabitation were included. The survey was careful to ask whether the violence had occurred during adulthood and whether it had occurred between same-sex or opposite-sex partners. The survey was not restricted to current partnerships, a tactic that likely improved the integrity of the data because violence may disrupt a partnership.

Results show that men in same-sex couples are three times as likely to suffer violence from their male partners as men in opposite-sex couples experience violence from their wives (OR 3.0). Because of social convention and physical disparity, it is not surprising that men in opposite-sex partnerships experience less violence. This makes the histogram below rather hard to interpret adequately.

Typically, lesbian relationships are considered to be violent. However, this survey found that the violence inflicted by women on women partners was statistically the same as the violence suffered by men at the hands of their female partners. Either of the two ORs might have been plotted as statistically indistinguishable, but the one used is 1.5. It is true that lesbians suffer a lot of general violence, but such violence was often perpetrated by men; about half of the SSA women in the survey had previously been in an opposite-sex relationship.

The same low prevalence of violence among lesbian couples was supported by Schraiber, Oliveira, and Franca-Junior (2008). While the low violence rate among lesbian couples is contrary to anecdotal impressions and to the impression given in the literature, other studies were either ambiguous, not random, or did not compare the lesbian couples to heterosexual control groups. An impression of general extreme violence can easily arise if there are rare extreme cases of violence that attract attention, but proper random surveys are more reliable.

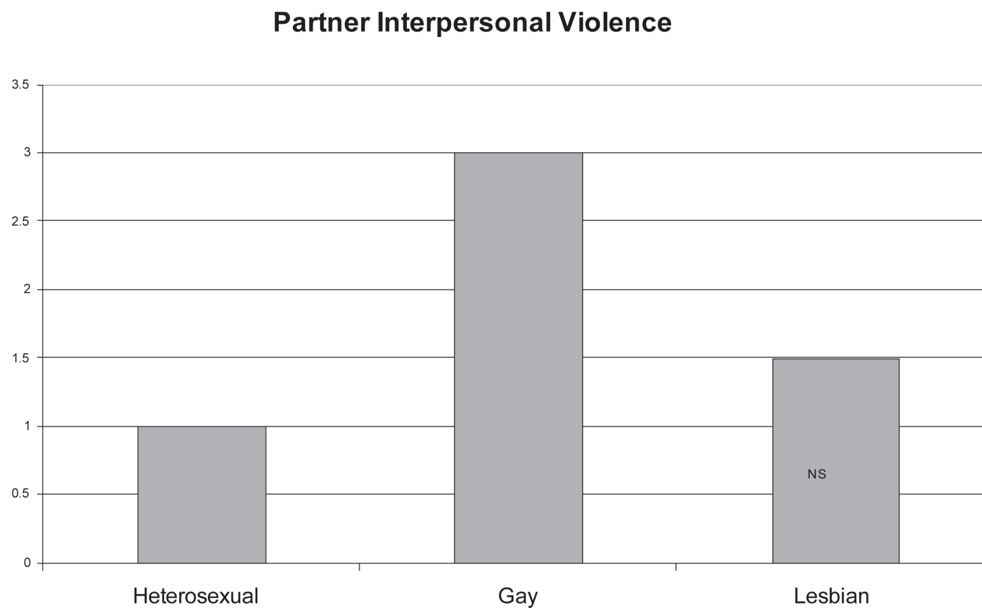

Figure 7. Violence in same- and opposite-sex couples, OR 3.0 men, 1.5 women

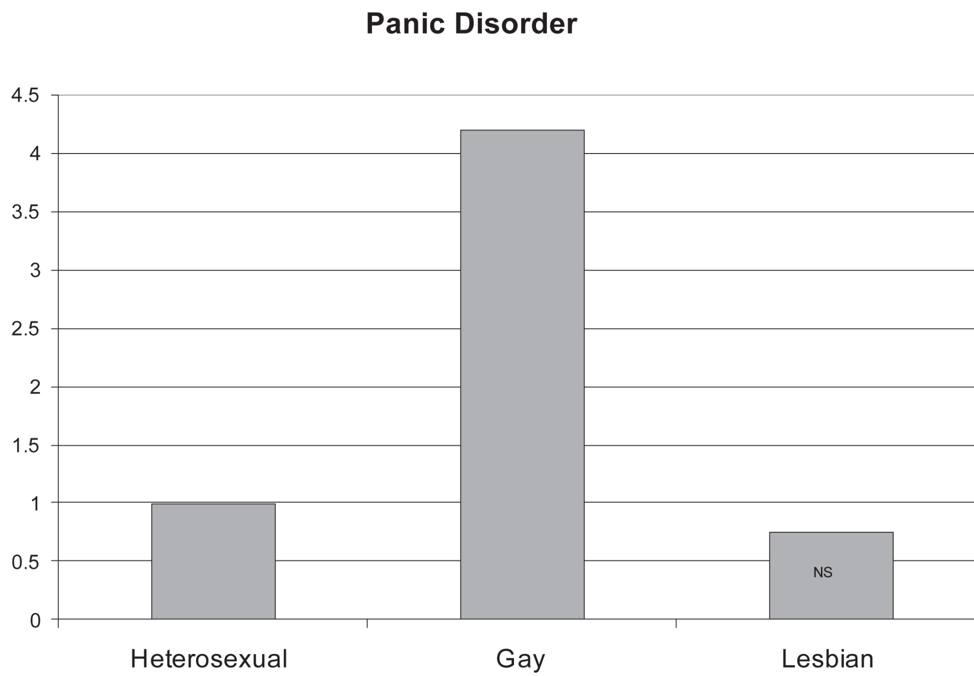

Figure 8. Panic Disorder, OR 4.21 men, 0.75 (NS) women (Sandfort, de Graaf, Bijl, & Schnabel, 2001; Netherlands).

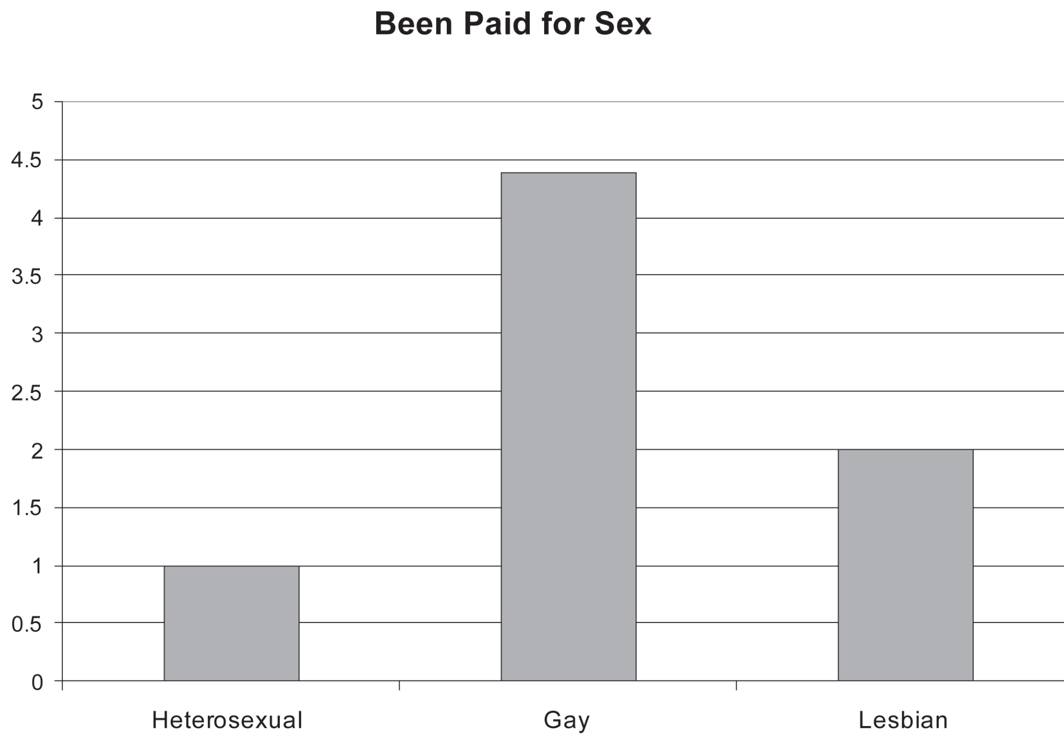

Figure 9. Been Paid for Sex, OR 4.4 men, 2.0 women (Schrimshaw et al., 2006; United States) Comparative OSA data are derived from Smith (1998) and Turner et al. (1998). The data included payment in kind, such as accommodation or food.

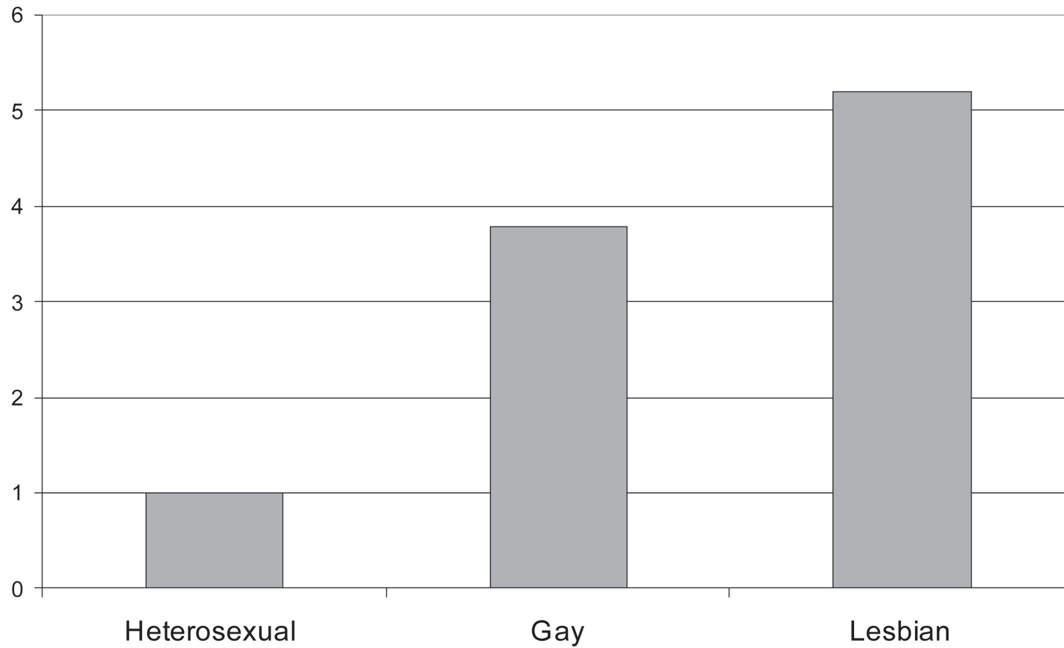

Figure 10. Conduct Disorder, OR 3.8 men, 8.7 women (Fergusson et al., 1999; New Zealand). A mean figure is used for the women's data range.

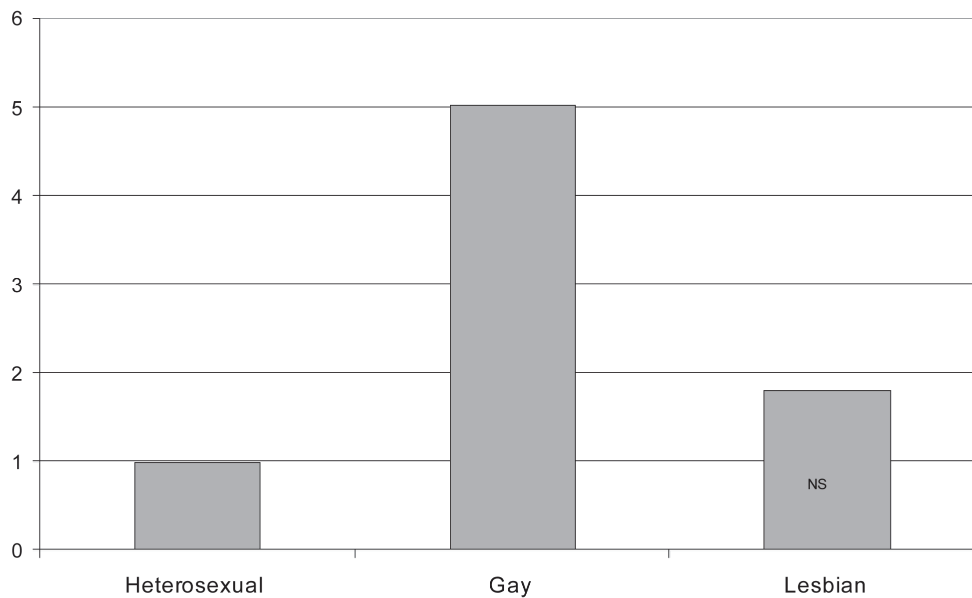

Figure 11. Bipolar Disorder, OR 5.02 men, 1.8 (NS) women (Sandfort et al., 2001; Netherlands).

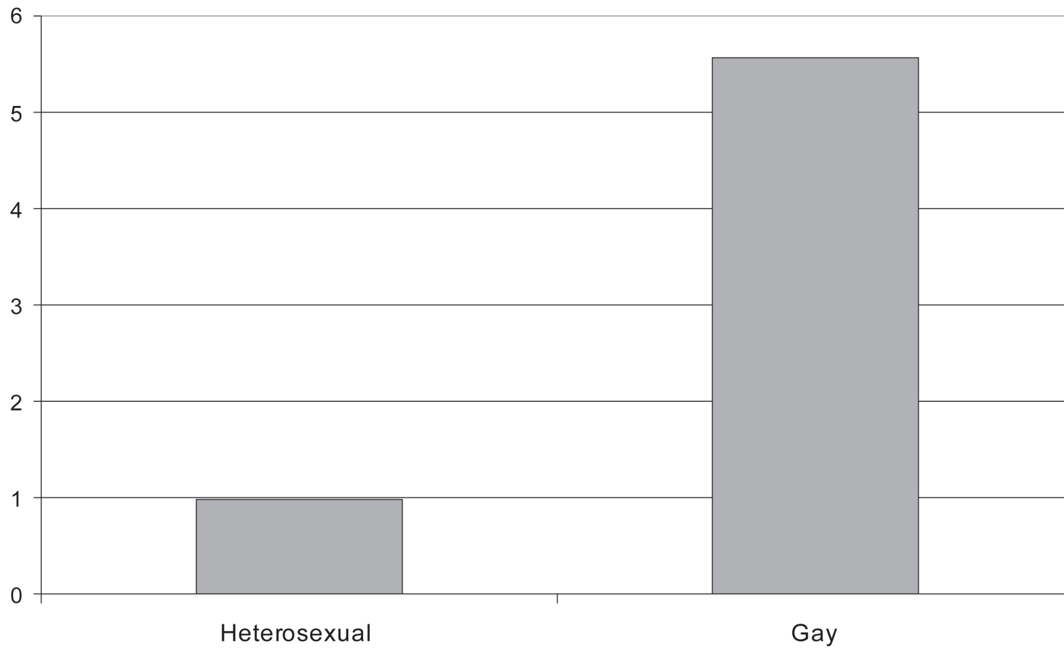

Figure 12. Suicidality, OR 2.58–10.23 men (various symptoms; the mean is plotted), 2.12 women. The figure for women was completely accounted for by contribution from various other mental health problems, such as depression, and is not plotted (de Graaf, Sandfort, & ten Have, 2006; Netherlands).

The large survey of Steele, Ross, Dobinson, Veldhuizen, and Tinmouth (2009; Canada) also found significant excess of suicidality. See also the study of Reed, Prado, Matsumoto, and Amaro (2010; United States), which found an OR of 6.6 for SSA college students. See below for in-depth discussion.

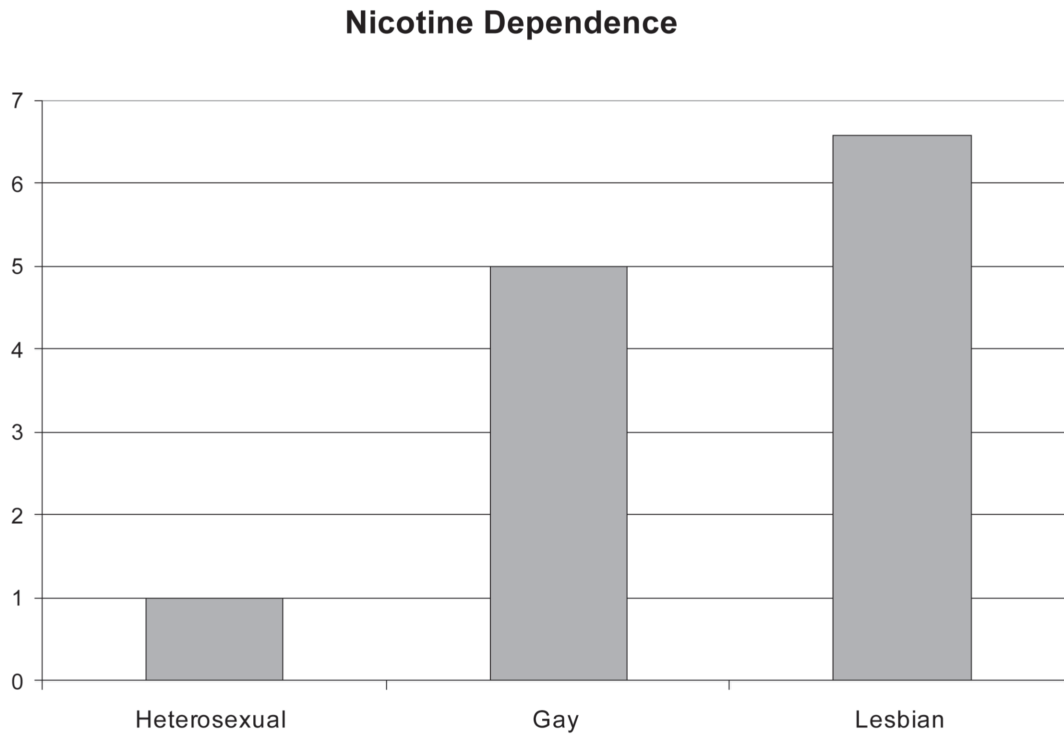

Figure 13. Nicotine Dependence, OR 5 men, 2.3–10.9 women (Fergusson et al., 1999; New Zealand). The mean of the range for women is used.

These figures result from a New Zealand longitudinal study. The findings are particularly interesting in view of New Zealand's strong anti-smoking attitude and far-reaching anti-smoking legislation.

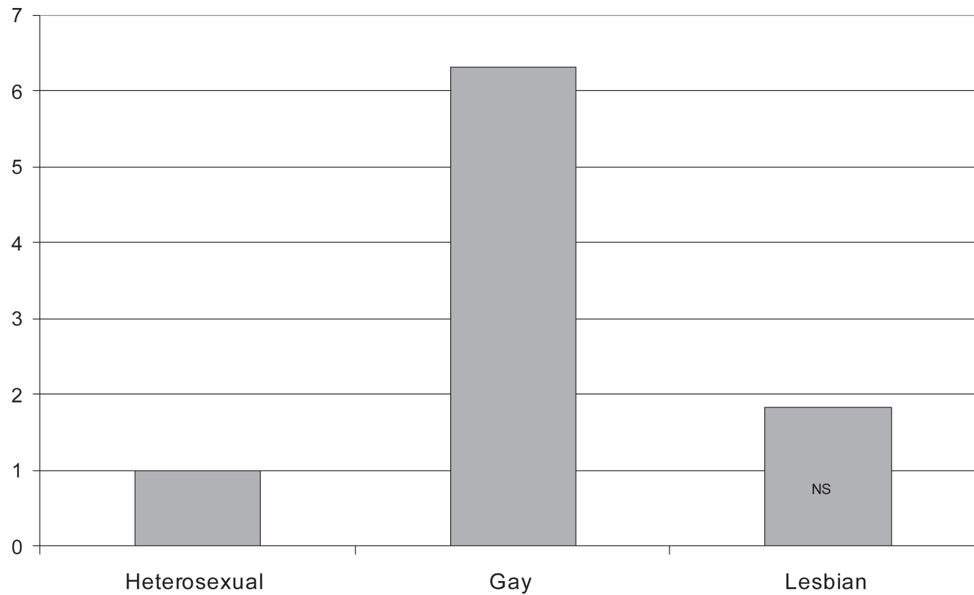

Figure 14. Agoraphobia (fear of being in public places), OR 6.32 men, 1.85 women (Sandfort et al., 2001; Netherlands).

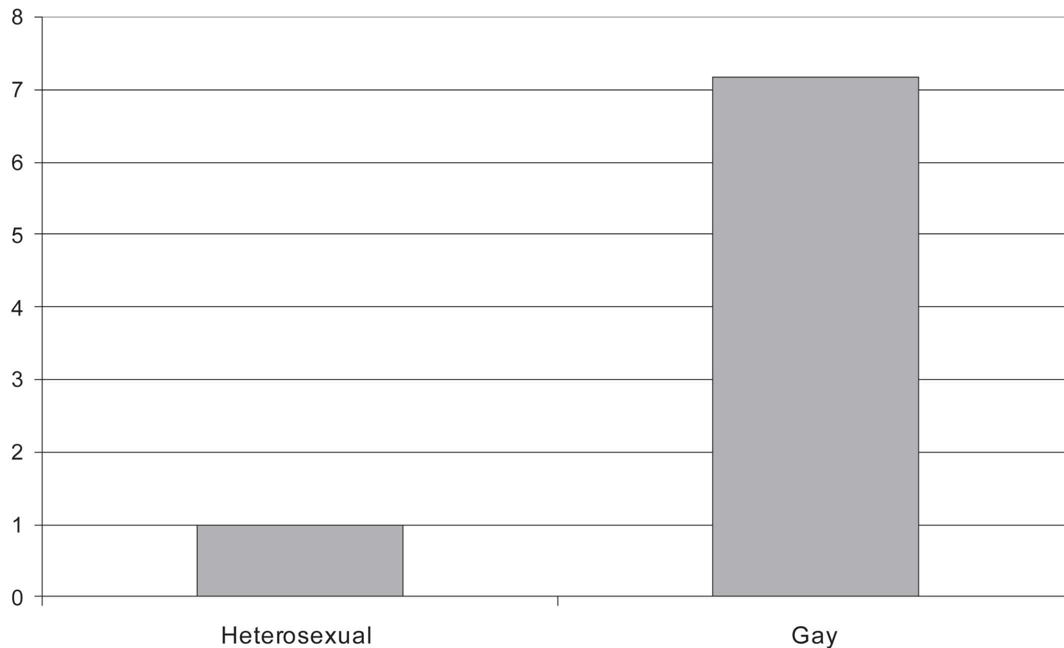

Figure 15. Obsessive-Compulsive Disorder, OR 7.18 men (Sandfort et al., 2001; Netherlands). There was zero prevalence for women in this sample, so the OR for women is not plotted.

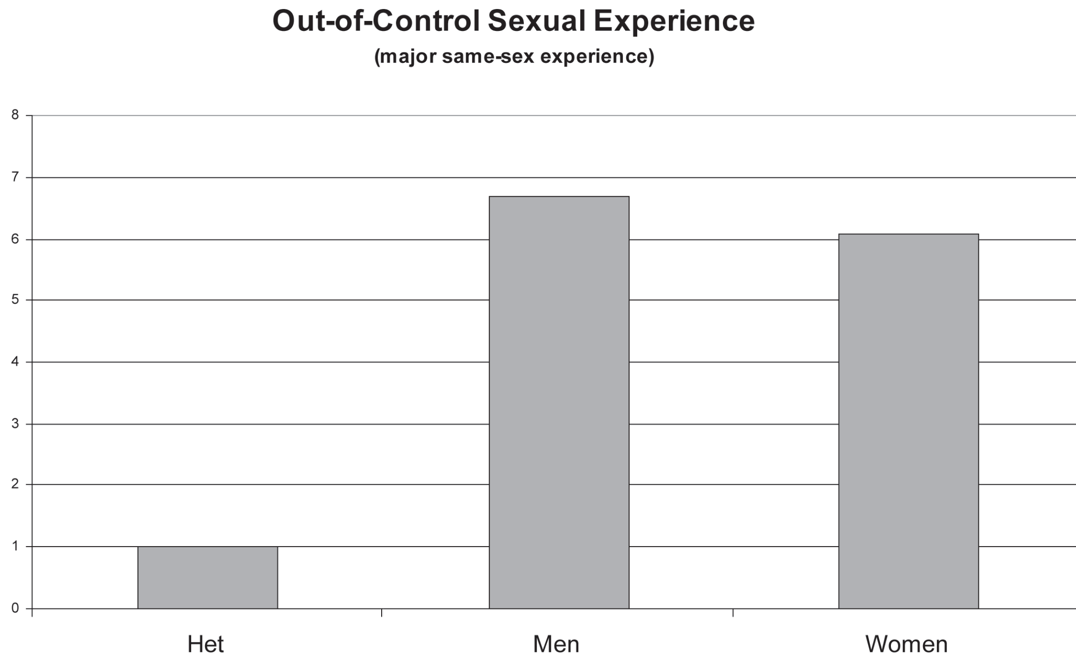

Figure 16. Sexual Compulsivity**.** OR 6.7 men, 6.1 women.

Although SSA persons who took a survey in a variety of street locations had elevated sexual compulsivity (Kelly, Bimbi, Nanin, Izienicki, & Parsons, 2009), it is likely that the people in those street locations were addicted to cruising and were therefore non-representative, so that survey is not used.

The better data shown in Figure 16 refer to self-ascribed “out-of-control sexual experience” in the Dunedin longitudinal study, which followed 1,000 people from birth for more than thirty years. The data are for those who had major same-sex experience. The authors point out that measure of “out-of-control sexual experience” might not capture those who denied that their experience was out of control (Skegg, Nada-Raja, Dickson, & Paul, 2010; New Zealand). This measure overlaps the established sexual compulsivity scale but is not identical with it.

This pathology is preferentially strongly associated with SSA and shows that SSA as expressed in physical contact has greater associated pathology than OSA expressed in physical contact.

Substance Dependency

The next three histograms for substance dependency are taken from McCabe, Hughes, Bostwick, West, and Boyd (2009) and involve a large survey of nearly 35,000 respondents. Respondents differentiated between use and dependence and between different degrees of current sexual identity, current sexual attraction, and lifetime sexual behavior. The resulting ORs are calculated based on attraction. Those who had no sexual experience after the age of twenty had very low dependencies for all three substances compared with heterosexuals. Those who had attractions but did not identify as gay or bisexual generally had fewer substance dependencies than those with a clear identity. An exception is bisexual women, who had a very high dependency on “other drugs” (OR 17.6). Although male SSA ORs for dependency are often significantly greater than for heterosexuals, female ORs are often significantly even higher.

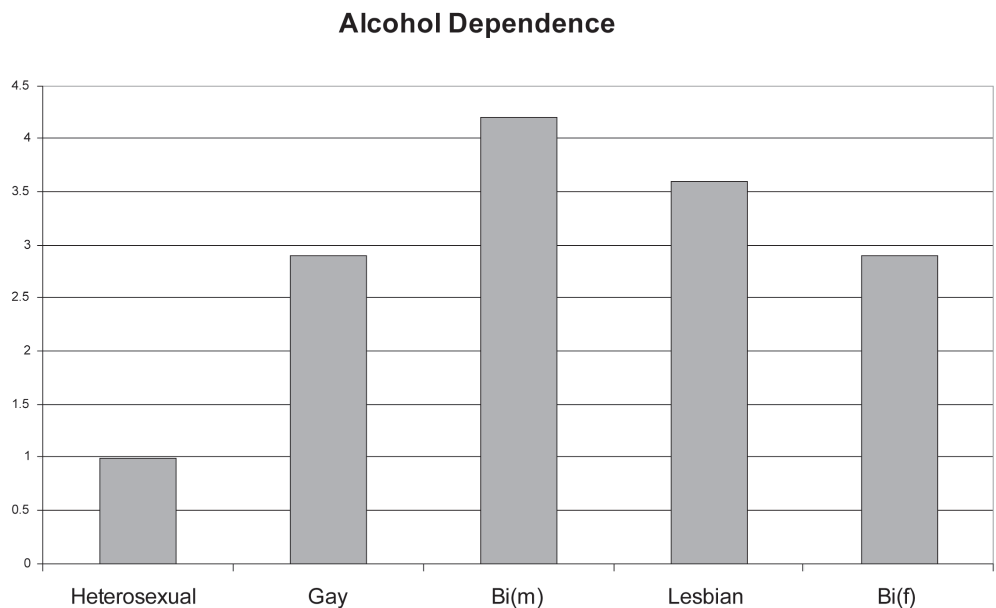

Figure 17. Alcohol Dependence, OR gay 2.9, bi (m) 4.2, lesbian 3.6, bi (f) 2.9 (McCabe et al., 2009; United States).

It was notable that reported alcohol *use* was no different in homosexuals and bisexuals from use among heterosexuals, but alcohol *dependence* was higher for gays, lesbians, and bisexuals. If the reporting by respondents is reliable, this implies that dependency may occur even with moderate drinking.

The data in Figure 17 are reasonably well supported in the smaller sample of Sandfort et al. (2001; Netherlands).

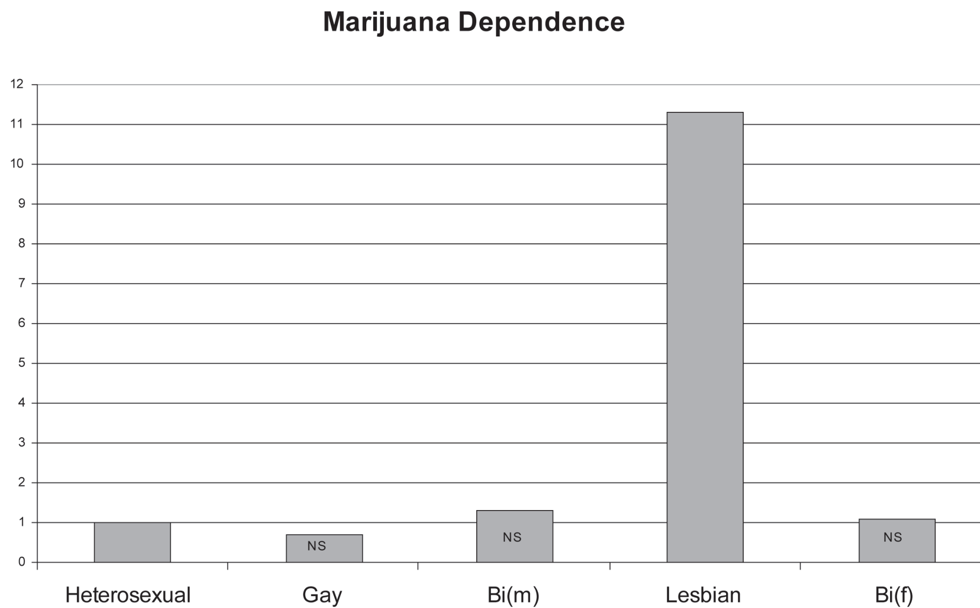

Figure 18. Marijuana Dependence**.** OR gay 0.7 (NS), bi (m) 1.3 (NS), lesbian 11.3, bi (f) 1.1 (NS) (McCabe et al., 2009; United States).

Marijuana *us*e was much higher for SSA respondents than was *dependence*; the only dependence significantly higher than for heterosexuals was among lesbians.

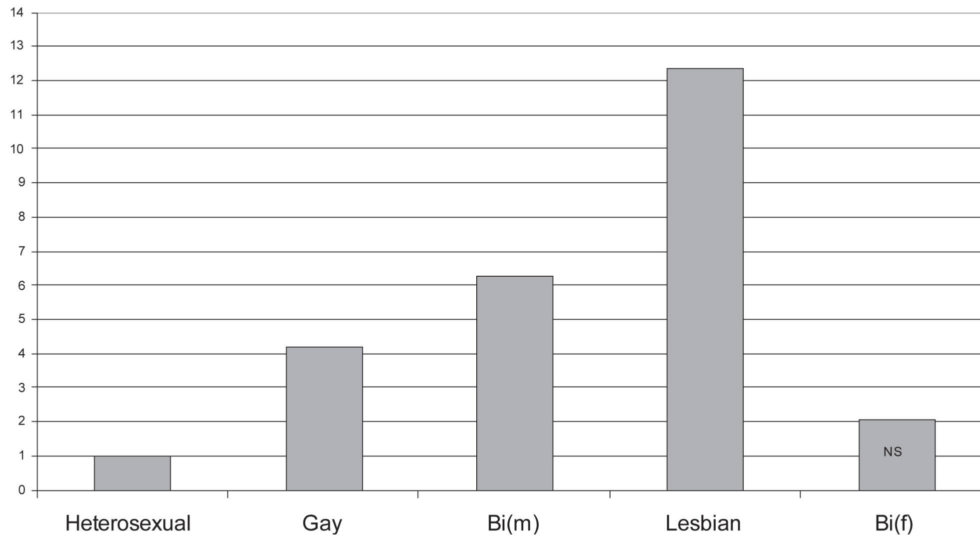

Figure 19. Other Drug Dependence**,** OR gay 4.2, bi (m) 6.3, lesbian 12.4, bi (f) 2.1 (NS) (McCabe et al., 2009; United States).

There is reasonable support for these figures from the smaller sample of Sandfort et al. (2001). A simple summary of other drug use beyond dependency is not possible.

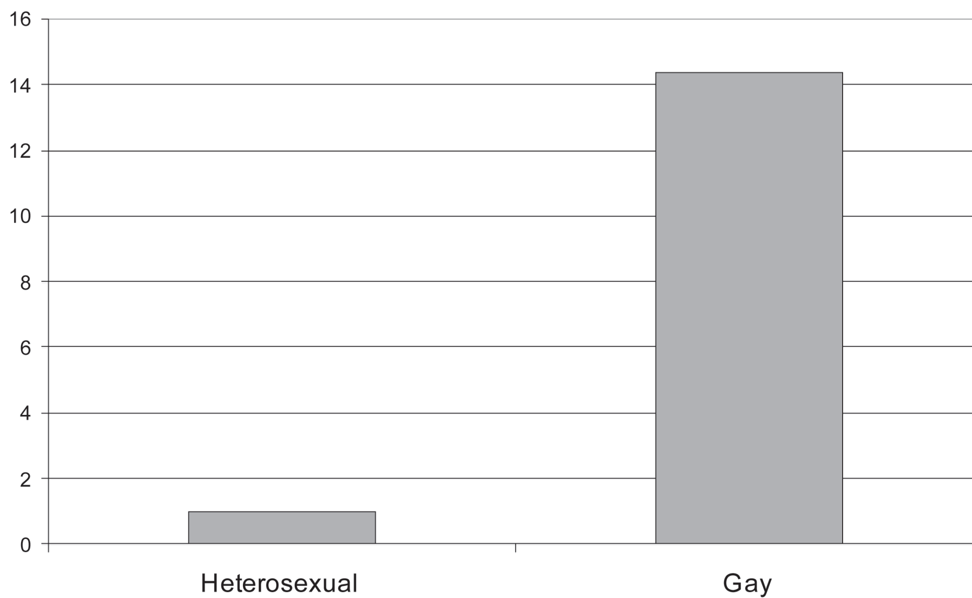

Figure 20. Schizophrenia plus Criminality, OR 14.4.

In this sample the group was overwhelmingly SSA (Alish et al., 2007; Israel). However, compared with other studies in this paper, it was a relatively small sample from consecutive admissions to a forensic unit in a justice system. Although it is highly statistically significant, the precise value has a larger margin of error than usual.

The result from this sample refers to schizophrenics who commit sexual crimes, not schizophrenics as a whole or the SSA population as a whole. So which came first—the SSA or the schizophrenia? Most often it was the SSA, with the first same-sex attraction occurring at about the age of ten, according to many studies.

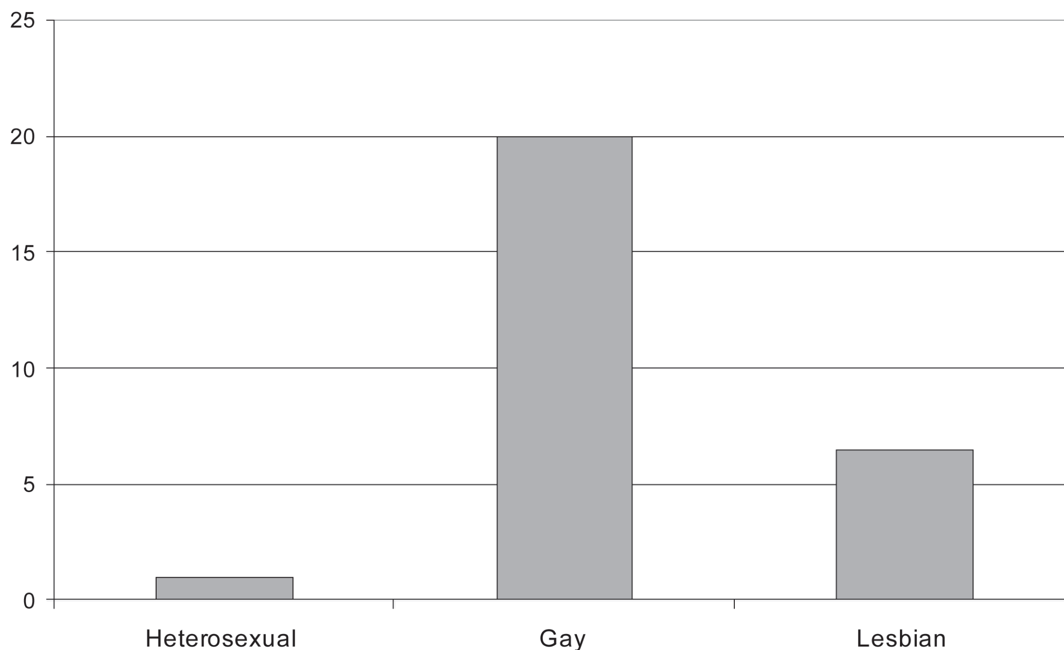

Figure 21. Borderline Personality Disorder, OR 20 men, 6.5 women (Sandfort et al., 2001; Netherlands). This includes instability in mood, unstable personal relationships, and disturbance in the sense of self; it may also include violence.

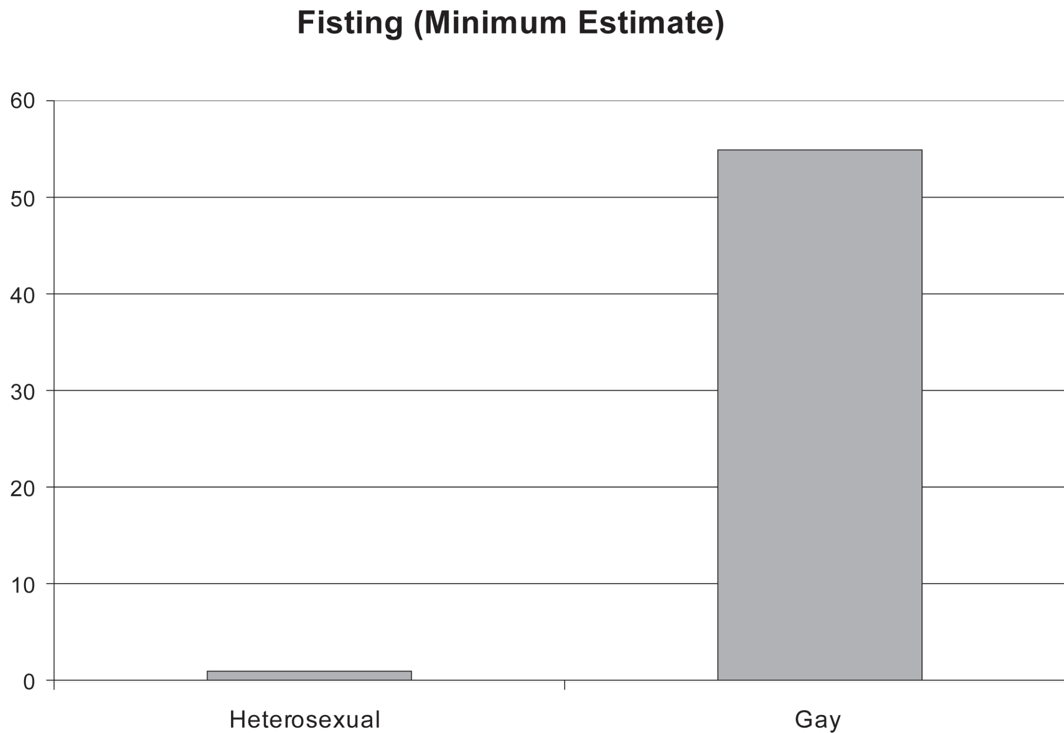

Figure 22. Fisting, OR 55 men only (Richters, Grulich, de Visser, Smith, & Rissel, 2003; Australia).

These results were based on a random sample of Australian adults; the figure is a minimum because of ambiguity in the paper cited. Fisting is included as one estimate of the DSM category "Paraphilias" (American Psychiatric Association, 2000) but better quantification is needed. Several tens of percent of lesbians have tried vaginal fisting. Comparable heterosexual data are not readily available but would probably show low prevalence.

Discussion of Mental Health Disorders

While it is not a DSM category, another example of pathology might be "suicidal risk-taking in unprotected sex" (van Kesteren, Hospers, & Kok, 2007). Such "suicidal risk-taking" may be calculated by taking account of the HIV infection prevalence in

OSA and SSA groups. Using that calculation, the increased OR risk in male SSA groups ranges between 200 times greater among homosexual men than heterosexual men in New Zealand, to about 500 times greater among homosexual men than heterosexual men in the United States. These clearly represent extraordinarily high risks.

Francis (2008) calculates that in the United States the health risk of unprotected receptive anal sex with a man is 3,500 times higher than that of vaginal sex with a woman. It is difficult to find similar risk-taking in other comparable-sized segments of society. This risk-taking is highly pathological and probably the most extreme of the risks surveyed in this paper.

As a rule of thumb, SSA populations have about three times the prevalence of many of the surveyed DSM characteristics than what is found in the general population, and sometimes a much higher prevalence. The slight tendency for bisexuals to have an even higher prevalence than the exclusive SSA group could reflect the additional stress arising from dual identity.

Those with psychiatric conditions are less likely to cooperate with surveys (Haapea et al., 2008), so the OR results above represent a minimum. The factor of three is the same as found among those injured in bus accidents and who subsequently suffer physical disability and resulting mental disorder (Mohanan & Moselko, 2009), which may be some illustration of the degree of psychological trauma experienced by the SSA population.

To conclude, there are many different pathological traits well established to be more prevalent in the SSA population than in the OSA population. *It is difficult to find a group of comparable size in society with such intense and widespread pathology,* despite the claims of some that SSAs are no more pathological than normal. (Prisoners in the United States have more intense pathology [90 percent with substance abuse or dependence and other mental conditions as a snapshot at any given time—Gunter et al., 2008], but since prisoners represent only 1 percent of the population in the United States, some might dispute the appropriateness of such a comparison.)

It is also possible that college-age people in the United States also have worse pathology (Blanco et al., 2008). About half of the college-age people have had a DSM condition within the last year, compared with half of the SSA people during a lifetime. Conditions among the college-aged are mostly substance-abuse-related and age-limited; results for the SSAs are not age limited but generally include the whole life up to the point of the survey.

There is clearly increased pathology in SSA people compared with their OSA counterparts; this is true to such an extent that some authors (Fergusson et al., 1999) speculated that any kind of mental disorder predisposes a person to SSA. One interpretation of this idea could be that the mental disorder precedes the SSA; this is like the situation seen in some animals where a failure of discriminatory power (such as olfactory) leads to indiscriminate courting behavior with all sexes. There is no evidence for this in SSA people, and the theory in this form is not likely. In SSA people, there is positive attraction toward the same sex, not failure to discriminate. Even among bisexual people, most experience different, not similar, attractions to each sex. Further, using a computer model, Lung and Shu (2007) found no occurrence of SSA resulting from poor mental health among military recruits in Taiwan. Finally, the usual history of mental disorders among SSA people is awareness of SSA followed by depression and suicidality—making it likely that the SSA produced the disorders rather than the disorders producing the SSA.

There is an amazing variety of mental disorders associated with SSA, and there is little in common among many of them other than general disturbance and disruption of the psyche. It is initially difficult to see how SSA itself could lead to such a large variety of outcomes. Why, for example, should SSA—a single condition—produce conditions as diverse as bipolar disorder, schizophrenia, and obsessive-compulsive disorder? Yet the associations are quite strong.

It is conceivable that the intense connection-euphoria/rejection-despair motif in SSA stories might lead to bipolar disorder in some people. It is also conceivable that the

enhanced sexual compulsivity in some SSA people might lead to the compulsivity of obsessive-compulsive disorder.

A frequent commentary is that there is a clear tendency for SSA men to have higher rates of conditions more common in heterosexual women (mood disorders), and for SSA women to have higher rates of conditions more common in heterosexual men (substance abuse). This is not what one might expect. If societal attitudes were the only factor, there should be an intensification of gender-linked *heterosexual* mental health patterns, but there is not. The reversed pattern argues a closely sex-orientation-linked origin. In other words, the SSA may be inherently productive of this gender-reversed pattern.

Consequences for Therapy

Rekers (2005) reported that the majority of gay, lesbian, and bisexual people have at least one psychiatric disorder in their lifetime, and the New Zealand study (Fergusson et al., 1999) reported that 70 percent of these people have more than one psychiatric disorder during their lives. A University College of London study (King & McKeown, 2003) found that two-thirds of people with SSA have a lifetime mental disorder, compared with one-third of the heterosexuals. However, this general difference between SSA and OSA of 2:1 is less than the ORs generally found (as detailed above), which are usually 3 or more. Part of the reason for this disparity is the contribution from college-age substance abuse to the OSA data.

The higher prevalence of disorders in SSA people has social implications, particularly in the increased need for therapy resources. A general therapeutic client may be depressed, but that client usually suffers from only one condition—in other words, the client is usually not also violent. One conclusion from the research is that most clients presenting with unwanted same-sex attractions have not only the unwanted SSA condition, but are also likely to have a psychiatric condition. Therapists may subsequently be faced with more challenging therapy because of the second condition. Therapists in general are usually aware that it is essential to look at some of the other issues before

addressing same-sex attraction; for example, the effects of sexual abuse or suicidality are more urgent therapeutically than SSA.

Interestingly, a survey of many mental conditions (Cerda, Sagdeo, & Galea, 2008) was able to show that when two conditions were present, either could produce the other. As an example, depression may cause alcoholism, but alcoholism may also cause depression (Marmorstein, 2009). Treating one condition, then, may greatly help another. Similarly, treating a mental condition that co-occurs with SSA (such as social anxiety) may sometimes lead to improvement in the SSA, even though the SSA was not specifically addressed (Golwyn & Sevlie, 1993).

What should the therapeutic response be to a group that has such difficulties in life? As with any client, compassion and empathy should be foundational in the therapeutic approach. In addition, it may be important to understand that other issues may be present and may need to be explored and addressed. Further, when working with clients who present multiple problems, it should be expected that the therapeutic involvement may be deeper and more prolonged than usual.

The co-morbidities and greater difficulties associated with SSA may also cause many people to seek change of orientation and/or lifestyle. Some SSA men and women may desire a life less encumbered and may therefore seek change. Requests for change should not be dismissed or handled lightly, but need to be understood in the larger context.

Origins of Poor Mental Health

Why is mental health worse among people with SSA? Stigma and discrimination are given as explanations. The following material—examining mental health conditions in general and suicidality as a specific—argues that stigma and discrimination are an unexpectedly small part of the whole.

Is local law a factor? Hatzenbuehler, Keyes, and Hasin (2009) find a correlation between lack of antidiscrimination legislation in various areas of the United States and

poorer mental health among gays and lesbians. This implies that legislative environment may produce poor mental health in SSA people. However, those least affected by mental health issues plausibly relocate to areas where more favorable legislation exists. Other similar studies will need great care in allowing for similar confounding factors.

How important is sexual abuse? Bartholow et al. (1994; see Figure 23) found that SSA people who had also been sexually abused had an OR of 1.5 for worse mental health. In other words, they maintain that sexual abuse is one factor associated with poor mental health. However, the gap to the OR 3.0 figure for SSA people is much larger than the 0.5 increment compared with the OSA. If that gap is due only to societal oppression, the implication is that it is experienced as being about three times as bad as sexual abuse, which is hardly credible.

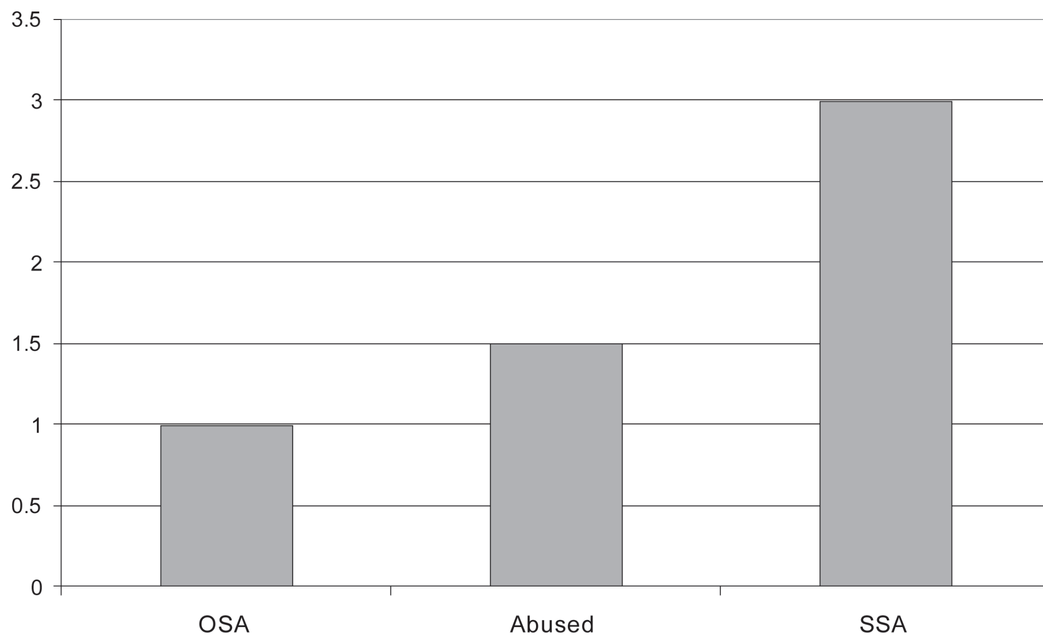

Figure 23. Effects of Sexual Abuse; OR 1.5 abused and 3.0 SSA.

Quantitative modeling by Frisell, Lichtenstein, Rahman, and Langstrom (2009) showed that perceived discrimination and victimization of people with SSA accounted for a significant

part of the mental health burden; they maintain that the rest stemmed from genetic/family factors. This discrimination against SSA is called *minority stress* in recent literature.

Hamilton and Mahalik (2009) found that minority stress was not directly associated with illicit drug use, but reaction to perceived social norms together with minority stress had some contribution. Only 13 percent of the effects on drug-taking are explained by the model, so minority stress was not a strong factor, and most reasons for drug use were not explained.

McCabe, Bostwick, Hughes, West, and Boyd (2010) examined the interaction between minority stress, racial discrimination, and gender discrimination (such as homophobia, racism, and genderism) and their influence on illicit drug-taking. Minority stress by itself was not a significant factor, only proving significant when part of a gender/race mix. Race by itself was the strongest factor (OR 3.2); adding in gender and minority stress increased the OR only slightly to 3.85. Discrimination on the grounds of sexual orientation seems to have only a minor effect. Similarly, Selvidge, Matthews, and Bridges (2008) found no effects of heterosexist or sexist experiences on lesbians' psychological well-being.

In the California Quality of Life Survey data set, Cochran and Mays (2009) found an association of poor mental health with HIV infection—another possible cause of poor mental health in SSA males. It is not surprising that HIV infection might have a significant effect, but the direction of causality is not yet established, and the effect has not been consistently found in other studies.

Origins of Depression

Contrary to the finding for suicide (considered next), the frequently used scale of internalized homonegativity has been shown to have moderate to strong connection to three forms of depression (Rosser, Bockting, Ross, Miner, & Coleman, 2008). The homonegativity scale measures negative statements about homosexuality said to be typical of attitudes in the society at large, and the implications in the literature are

that internalizing these allegedly false statements leads to depression. However, some statements on the list are true in general, such as "Gay men are more promiscuous than straight men" or are true for individuals, such as, "It is important to me to control who knows about my homosexuality." It is not surprising that believing these statements leads to depression. This in itself does not clearly show that society is to blame, and indicates that depressive reactions may be in part a reaction to the truth.

Similarly, Josephson and Whiffen (2007) found the greatest contribution to depression for homosexual males was a disjunction between their ideals of masculinity and the reality they themselves experience. Other examined character traits had more minor contributions.

Causes of Suicide

There is little direct evidence that the prevalence of completed suicides as compared to attempted suicides is higher for SSA people. Work quoted by Hendin (1995) from a study by Shaffer suggested that actual completed suicides were proportionately about the same for OSA and SSA individuals, so perhaps only the attempted suicides were more frequent among SSA people.

However, Mathy, Cochran, Olsen, and Mays (2009) studied a large Danish sample of SSA people. Those contracting Registered Domestic Partnerships had an OR of 1.65 (NS) for women and 8.0 for men who completed suicide. This seems to establish that completed suicides are more common among SSA individuals than among heterosexuals, at least among men. However, the domestic partnership dynamic itself may not be entirely typical of conditions generally for the SSA population and may lead to a biased result.

Does Stigma Create Suicides?

Does discrimination/stigma/bias cause suicidality? Real discrimination obviously exists. It is suggested that the real cause of suicide is the individual's reaction to

perceived discrimination and a particular style of coping that is less common among heterosexuals. Whether the discrimination is perceived or real, however, there are actual and deleterious effects on the individuals concerned.

It is very common for researchers to assert that discrimination, abuse, and vilification are causes of suicidality. While this sounds reasonable, there is remarkably little quantitative support for this in published papers, in which most authors are careful to use the qualifying term *perceived*.

Discrimination as a Cause of Suicide

Ridge, Plummer, and Peasley (2006) said that men with SSA reported feeling like perpetual outsiders, regardless of their level of achievement in life. This feeling of rejection obviously may cause suicidal feelings.

Diaz, Ayala, Bein, Henne, and Marin (2001) found that social discrimination reported by gay men was a strong predictor of suicidal ideation. Those researchers, however, thought the discrimination referred to resulted from poverty and social isolation rather than homophobia. Violence experienced as a child (OR 3.5) and adult fed into this more strongly than adult ridicule. The researchers commented that the people who were suicidal had low resilience—in other words, they were more affected by the circumstances than others would usually be. Overall, only 38 percent of the suicidal ideation was explained. This means that even the factors they identified were not the major causes.

In an Internet survey (Hillier, Turner, & Mitchell, 2005) that included those who had attempted suicide, only 35 percent thought homophobia was the reason, again suggesting that such "discrimination" was not a major cause. It needs to be remembered, however, that Internet surveys are not always representative of the entire population.

D'Augelli et al. (2005) found that parental knowledge and disapproval of the person's sexual orientation was a factor in suicidality. Psychological abuse from parents was by far the most important factor in their view. But Hegna and Wichstrom (2007)

maintain that nonacceptance of sexual orientation by family and friends is not a factor in suicidality. Suicidality was also related to victimization. Obviously, the potential causes of suicidality need further investigation and better quantification.

Some papers implicate discrimination as a cause of suicidality, but less than one might expect. In summary, although this is very rough, the figures in the more quantitative papers above point to no more than a 30 percent to 40 percent influence. The research below suggests the figure is less.

Doubts About the Importance of Discrimination

Shaffer, Fisher, Hicks, Parides, and Gould (1995) found that suicide attempts did not follow stigmatization episodes. They did find that there *was* psychiatric disturbance (probably depression) before suicide attempts.

Hershberger and D'Augelli (1995) similarly found victimization was not directly related to suicide; independent suicidal thinking was as important as victimization. They found that family support was very important in helping avoid suicide.

A number of papers cast fairly strong doubt on whether discrimination, objectively measured, has any effect at all. Eisenberg and Resnick (2006) found that discrimination was not very involved in suicidality and that other factors were predominant.

Paul et al. (2002) mention that the mean age for suicide attempts among SSA people has declined over the years. In spite of greater acceptance in society, then, there are earlier attempts, so suicide trends are contrary to the trends of opinion in society. Quoting D'Augelli et al. (2005), they mention that the greatest attempt frequency was at the point where young SSA people were aware of their sexual orientation but were not yet out of the closet.

Ross (1988) described how the United States, the Netherlands, and Denmark compared for rates of suicide among SSA individuals. There were no differences in

spite of different levels of acceptance. Following work from 1978, Ross thought that *perception* of societal reaction was the main point. Ross also found a correlation between *perceived* hostility and psychological adjustment.

More current studies have identified essentially the same suicide rates among SSA people in the United States, the Netherlands, New Zealand, Denmark, and Norway. Based on that finding, it is not likely that varying societal attitudes have much to do with suicide rates.

Almeida, Johnson, Corliss, Molnar, and Azrael (2009) show that SSA youth have much higher suicidality, suicidal ideation, and self-harm than their non-SSA peers (OR 6); it should be noted that most of their sample were racial minorities. ORs of 6 are also found for SSA/OSA comparisons in racial *majority* situations, as mentioned earlier (see Figure 12). It would seem very possible that the dual burden of race and SSA would result in a much higher OR than 6; this expectation is shown in Figure 24.

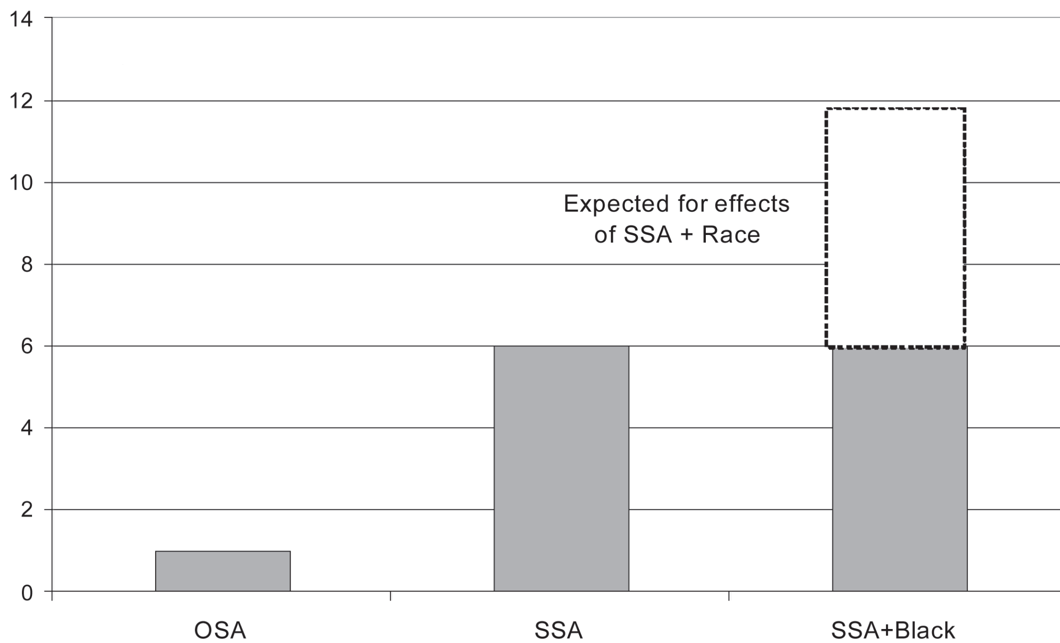

Figure 24. The missing effects of combined race and SSA.

A similar finding for adults was reported by Cochran, Mays, Alegria, Ortega, and Takeuchi (2007); the level of suicidality among sexual orientation minorities in racial minorities is about the same as for SSA Caucasians. One would expect the suicidality to be much higher in the racial minorities because of the extra burden of racial discrimination. Meyer, Dietrich, and Schwartz (2008), and Kertzner, Meyer, Frost, and Stirratt (2009) report similar data. Some of Kertzner et al.'s data contradicted the other literature—a gay or lesbian identity was associated with positive social/psychological well-being. The idea of discrimination leading to suicide is therefore at least doubtful. Quantitatively it is likely to be quite a minor factor.

A study cited in Plöderl and Fartacek (2009) examined those registered for homosexual partnerships in Denmark (Qin, Agerbo, & Mortensen, 2003). Among that group, the enhanced suicide rate for SSA people remained constant. This marriage parallel, although a supportive "non-discriminatory ceremony," did not reduce the suicide rate. However, the study may prove not quite typical because it was conducted early in the period when the marriage ceremony became available (1994–1997).

Meyer (1995) found in a careful study that homonegativity (internalized homophobia) accounted for only 8 percent of the influences leading to suicide attempts. This small number and weak effect emphasizes that this is not an important facet for most SSA people, in spite of the very common media assertions to the contrary. A similar weak effect for victimization as a cause of suicidal thoughts was found for adolescents (Poteat, Aragon, Espelage, & Koenig, 2009).

Factors other than societal oppression are important in suicidality. In very approximate numerical importance, based on the surveys referenced below, these factors include sexual relationship breakup, relationship difficulties with others (including families), and substance abuse. Stigma is probably fourth in the list in terms of importance.

Relationship Breakup as a Cause of Suicide

Bell and Weinberg (1978) said that breakdown in relationships was often a cause of suicide. This assertion is spelled out more fully in other studies.

In his book, *Suicide in America,* Hendin (1995) wrote:

> Homosexual rejection was the usual precipitating event for the suicide attempt. Suicidal homosexuals typically attributed all their unhappiness to rejection, but it was clear that unhappiness and rejection formed intrinsic parts of their relationships. When these students were not being rejected in their homosexual relationships, they were the ones doing the rejecting. Although this pattern also emerged among homosexual students who were not suicidal, homosexual students who were suicidal had abandonment and death at the center of their adaptive history. (p.137)

He also mentioned the life-or-death "I can't live without you" quality that suicidal homosexual students gave their relationships (Hendin, 1995). This was hardly surprising—the rare friends they had were more valued than usual.

Hendin's comment implies that SSA youth are actually more extreme in this regard than heterosexuals. He implies unusual levels of rejection toward some SSA friends and unusual levels of acceptance of others. There is both intense connection and intense rejection, and dramatic shifts between the two seem to occur (Hendin, 1995).

Because median numbers of sexual partners are perhaps three times those of heterosexuals (Laumann et al., 1994), one might assume three times the tendency to suicide, as found. This could warrant further investigation.

Although it is tempting to imagine that breakups are due to discrimination, the gay researcher West (1977) thought otherwise, saying that "these social difficulties do not really explain the frequent breakup of male affairs from internal dissension rather than outside pressure" (p.164).

Family rejection, sometimes partly because of SSA and confused with it, is also a suicide factor (Ryan, Huebner, Diaz, & Sanchez, 2009), particularly for young people. This was mentioned previously for other mental health issues.

Substance abuse may also lead to suicidality. Besides the well-known consequence of depression, substance use is associated with paranoia, which can lead a person to believe that society is personally rejecting him or her. This is exemplified by the work of Alterman, Gerstley, Strohmetz, and McKay (1991), who found that alcoholics with antisocial personality disorder have significant paranoia. A similar finding emerged from Fleischhacker and Kryspin-Exner (1986), who found that both drug use and alcoholism create paranoia or over-sensitivity to criticism and consequent depression. The association of substance use with SSA and suicidality warrants further exploration.

Inherent Suicidality?

Some researchers thought suicidality might be inherent in being SSA. Skegg, Nada-Raja, Dickson, Paul, and Williams (2003) noted that suicide attempts increased even with SSA that was too minor to be noticed by outsiders or to be discriminated against. De Graaf et al. (2006) noted a significant remnant association of SSA with suicidality when other factors were allowed for; their findings held only for men, and none of the suicidality was attributed to discrimination. This suggested a correlation between the suicidality and the SSA itself.

In conclusion, many papers suggested that factors other than societal attitudes were involved in suicide attempts.

Coping Style and Suicidality

One important strand in this literature is the concept that a significant amount of the emotional distress and harm experienced by SSA men results from specific internal

styles of coping. Some types of coping among SSA people lead to increased depression (Auerbach, Abela, Zhu, and Yao, 2010). According to Sandfort, Bakker, Schellevis, and Vanwesenbeeck (2009), there are three main styles of coping with problems: task-oriented (most common among OSA men), emotion-based, and avoidance-based. Most of those in the SSA sample used emotion-based and avoidance-based coping styles.

Sandfort et al. (2009) noted:

> The higher prevalence of health problems in homosexual compared to heterosexual populations is usually understood as a consequence of minority stress. We hypothesized that differential rates of health problems also could result from sexual orientation-related differences in coping styles. *Emotion-oriented and avoidance-coping mediated the differences in mental and physical health between heterosexual and homosexual men*. (p. 253, emphasis added)

In quantitative terms, coping style *completely* accounted for the differences between heterosexuals and homosexuals. There was actually no room for stigma or discrimination as a factor. This might still be consistent with the finding of Rosser et al. (2008) that internalized negativity had a moderate to strong correlation to mental health problems. Under this scenario, SSA people would react negatively to negative statements about SSA and would use avoidant or emotional coping mechanisms. In other words, we are looking at reactions internal to males reporting SSA—reactions that are primarily differences in reaction to stresses, particularly discrimination. In striking contrast, heterosexual-directed criticism by homosexual people would rarely be perceived as very negative by heterosexuals, who would tend to brush criticism aside.

A similar deficit in emotional regulation was found in sexual minority adolescents of both genders (Hatzenbeuhler, McLaughlin, & Nolen-Hoeksema, 2008), which deficit mediated various mental conditions. According to Mosack et al. (2009), "coping self

efficacy" (a similar factor) correlated with the intrusiveness of symptoms for both heterosexual and homosexual men. Lesbians seemed immune.

One result of these findings is that therapists should not simply assume that society is to blame for DSM co-morbid conditions. Some may be the result of societal pressures, but on average the cause lies elsewhere. Co-morbidities should be investigated on a case-by-case basis and may be amenable to therapeutic intervention.

The truth is that discrimination is not as great as it is perceived to be, but that probably doesn't matter—the result is the same: perceived discrimination leads to cross-culturally constant attempted suicide rates. Changes in society and societal attitudes may be desirable but are somewhat beside the point in terms of suicide prevention.

Suicide Resulting from Therapy?

It would be devastating to any form of therapy to find that it consistently produced an excess of suicides. This section suggests that therapies for unwanted SSA do not result in an excess of suicidality, but there are nonetheless important internal nuances.

Surveys done a few years ago tried to determine positive or negative outcomes of therapy for unwanted SSA. None had other than convenience samples. One of the first was an 800-client survey (Nicolosi, Byrd, & Potts, 2000) that reported positive outcomes; later studies included Shidlo and Schroeder (2002), Spitzer (2003), Jones and Yarhouse (2007), and Karten and Wade (2010). The latter three found and reported mostly those who had positive experiences, particularly reporting change in sexual orientation. Shidlo and Schroeder (2002) sought those who had negative complaints but found a significant number of persons who reported positive experiences. Among negative experiences were a worsening in self-image and attempted suicides, sometimes ascribed to therapy.

From Shidlo and Schroeder's (2002) account, twenty-five people were involved in suicide attempts before therapy, twenty-three attempted suicide during therapy, and eleven attempted suicide after therapy. Figure 25 graphs the attempts allowing for the

time periods involved and compares them with the expected suicidality for the same time frame without the effect of therapy.

From Shidlo and Schroeder's (2002) demographic description, it can be inferred that the respective mean time periods involved were thirteen years, two years, and ten years. Therapy was brief compared with the surveyed times before and after therapy. (The pre-therapy figure of thirteen years assumes an estimate of the establishment of a gay identity at a mean of fifteen years). If distributions are highly skewed, adjustments may be needed to the time period estimates. Taking into account the time periods involved, the expected suicide attempts (rounded down), assuming therapy had no effect, would be twenty-nine, four, and twenty-three, assuming an equal rate per year in all three periods.

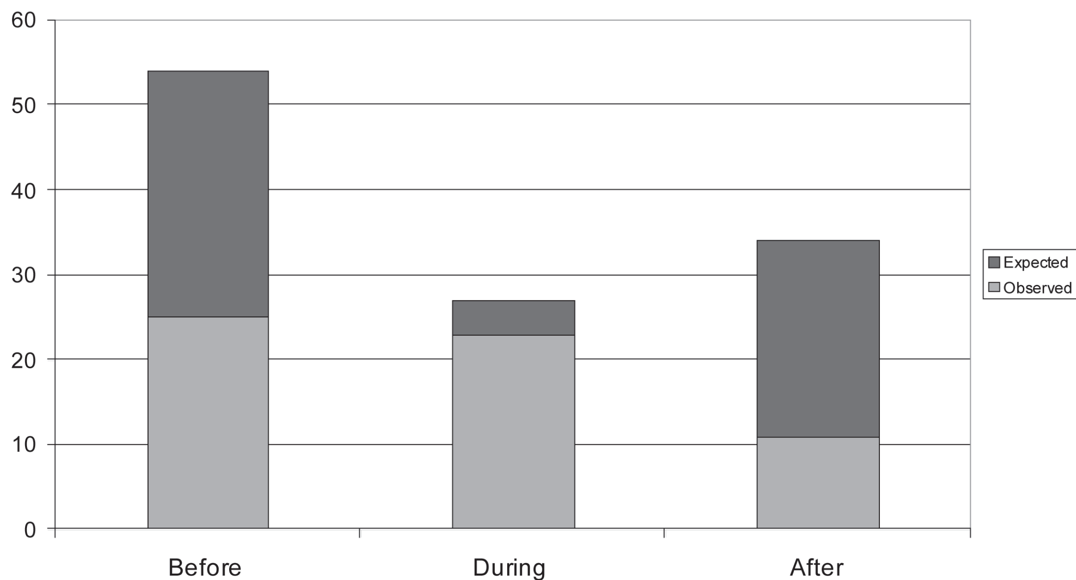

Figure 25. Varying suicidality related to SSA therapy.

A comparison of the expected and observed suicide rates before, during, and after therapy shows that there is a relatively high number of attempted suicides *during* therapy (four

expected but twenty-three observed), and an unusually small number after therapy (twenty-three expected but eleven observed). However, in the statistical treatment that follows the group studied by Shidlo and Schroeder (2002), the summary is:

(a) Comparing pre-therapy, therapy, and post-therapy groups, there is overall no significant increase in suicides per unit time.
(b) There is a very clear increase in attempts during therapy.
(c) There is a trend to fewer attempts after therapy.

Each of these should be examined in detail.

(a) Suicide attempts reported before therapy were 25, and those reported during and after therapy combined numbered 34. The expected numbers allowing for the time periods and normalized to the above total are 30.55 and 28.44. The expectation on which this is calculated is that therapy has no effect, either positive or negative. This is the most conservative possible assumption, and a control group is unnecessary. An even more extreme assumption would be that therapy offers some protective effects, but that assumption is ruled out by the convention that the assumption of null effects is the usual null hypothesis A chi-square test gives a value of $p = 0.14$. In other words, no difference has been demonstrated and there are apparently no increased numbers of attempts during and after therapy combined. Although the conclusion that overall these therapies did not significantly increase attempts is an important one, this is unnecessarily broad-brush, and examination of the two periods (during and after therapy) gives a much more nuanced picture.

As mentioned, an examination of the figure above shows that there appear to be far more attempts during therapy than expected, and fewer attempts than expected after therapy.

(b) For attempts before and during therapy, the observed results are 25 and 23, and the calculated expected normalized figures are 42.18 and 5.82. These are very different from the observed, and the chi-square test produces a result of $p < 0.001$. They are not the

same, and therapy has therefore been associated with a several-fold increase in attempts. However, other literature shows that this is actually a predicted pattern (see below).

(c) The observed results of attempts before and after therapy are 25 and 11, and the calculated expected normalized results are 19.68 and 16.30. The result of the calculation is $p = 0.075$. A statistical result < 0.1 and > 0.05 is usually called a "trend," in this case to fewer attempts after therapy. However, further inspection of the data shows that this result was quite sensitive to sample size. If only one extra person with no suicide attempts after therapy had been added to the sample, the result would have attained the usual $p = 0.05$ level of significance, and the conclusion would have been that therapy was associated with a significant diminution of attempts.

How likely is it that a really representative balance of satisfied and dissatisfied consumers of sexual orientation change efforts would attain a really significant statistical level? Shidlo and Schroeder's (2002) sample contained 26 satisfied and 176 dissatisfied (87 percent) clients. It is unlikely that this represents the distribution of satisfaction among previous clients for the average therapist, so the reduction in suicidality would almost certainly be even larger and more statistically significant with a more representative sample. There is obviously a need for a fuller survey to establish this conclusion more precisely. This is a rather trivial conclusion—in some respects, anyone encouraged to adopt a less risky lifestyle may be expected to experience very good long-term effects accompanied by a probable reduction in suicidality.

This means that the previous null result (Shidlo and Schroeder, 2002)—no overall increase in attempts comparing those before therapy with those during and after therapy—was the result of a combination of an increase and a decrease that roughly statistically cancelled each other.

Does this mean that therapy is inherently dangerous? Actually, it reflects the universal pattern seen in all psychotherapy. As demonstrated numerous times (e.g., Erlangsen, Zarit, Tu, & Conwell, 2006; Qin & Nordentoft, 2005; Qin et al., 2006), when

psychiatric patients are admitted to a hospital, attempted suicide rates rise to a very high level in the first week after admission. There is usually a secondary peak in suicide attempts the first week after discharge, followed by a strong long-term decrease to well below pre-admission rates (Erlangsen, Zarit, Tu, & Conwell, 2006; Qin & Nordentoft, 2005; Qin et al., 2006). The high admission rate is reminiscent of the rather well-known pattern that those rescued with major time delays—such as those rescued from mine disasters, mountaineering accidents, and shipwreck, as examples—often die soon after being rescued. In a kind of psychological reaction, once rescued ("under treatment"), they give up on their heroic endurance (Golden, David, & Tipton, 1997).

The suicidality of those with unwanted SSA follows the same pattern as those with diagnosed DSM disorders. Limitations on demographic descriptions in the above-cited papers (Erlangsen et al., 2006; Qin & Nordentoft, 2005; Qin et al., 2006) do not allow detailed comparison of the increased rates in suicidality during hospital admission to compare with SSA therapy rates but, using conservative demographic assumptions, preliminary calculation suggests increased rates are probably comparable.

Unfortunately, the polarized political reactions to SSA therapy are such that both negative and positive effects may have been significantly exaggerated.

Consequences of SSA Therapy

The conclusion of this statistical examination for therapists would be that overall the suicide attempts were not markedly higher in therapy than before therapy, but that there was a peak in attempts during therapy among those who had preexisting DSM conditions. A continuance of conventional surveillance would be prudent.

Summary of Causes of Mental Health Issues

The causes of psychopathology among SSA people require more research. For example, how much does substance abuse effect psychopathology? There is little

evidence that SSA societal stress leads to these endpoints. There is positive evidence for coping style being a major factor. For suicidality, factors that are certainly involved include sexual abuse, relationship breakup, and other personal relational difficulties. The relative quantitative strength of these needs to be better clarified. Various forms of therapy would be the most helpful option.

General Conclusions

SSA people have a lamentably high variety and intensity of mental health conditions, and there is evidence that this is much less due to societal pressure and attitudes than commonly supposed. Conversely, disorders are much more due to particular psychological coping mechanisms than usually supposed. The gender-reversed nature of these conditions argues a link to the SSA itself. Causes of suicide among SSA people are probably a result of *perceived discrimination* involving oversensitivity rather than actual discrimination, but are also due to relationship breakup and depression linked to substance abuse. They are unlikely to be much improved by societal change—the origins are within the SSA person and can probably be investigated within the therapeutic process.

Gay, lesbian, and bisexual populations are demanding the right to be free from all events that trigger their unusual sensitivity. However, that demand threatens to swallow the entire legal system, educational system, religious denominations, and professional bodies in many countries, and there is very little evidence it will make a significant difference to the mental health or suicidality of homosexuals. Therapy is more likely to have a positive impact and should be provided with attention to meeting the goals of the client and not taking lightly the varying needs and issues that may need to be addressed.

The body of literature on co-morbidities may also demonstrate a possible reason that some people are dissatisfied with their orientation and/or lifestyle and may seek change. Therapists should be sensitive to such requests—not simply dismissing them, but providing therapeutic assistance to help dissatisfied clients pursue their desired goals.

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Book Review of *You're Teaching My Child What?*

By Michelle A. Cretella and Arthur Goldberg*

* Michelle Cretella, M.D., is a board-certified pediatrician in general practice who also serves on the board of directors for the American College of Pediatricians. Arthur Goldberg, J.D., is co-founder and co-director of JONAH, Jews Offering New Alternatives to Healing; president of PATH, Positive Alternatives to Homosexuality, a coalition of secular and faith-based organizations; and author of *Light in the Closet: Torah, Homosexuality, and the Power to Change.*

You're Teaching My Child What? A Physician Exposes the Lies of Sex Ed and How They Harm Your Child, by Miriam Grossman, MD (Washington, DC: Regnery Publishing, 2009) is a must-read for every parent, educator, and health-care provider for children in America. Writing in an easy-to-read format that credibly references the scientific, academic, and lay literature, Grossman exposes "comprehensive sex education" for what it really is—a comprehensive program to sell sex and lesbian/gay/bisexual politics within America's education system. Grossman maintains that sex education in America's school systems and universities has in reality become part of a social movement that combines today's sexual indoctrination with the 1960s sexual revolution agenda. As she explains in her first chapter, "Make no mistake; this is a battle, and the battleground is our kids' minds and values" (p. 13).

Grossman speaks from practical experience as a board-certified child, adolescent, and adult psychiatrist who has spent twenty years at the University of California–Los Angeles campus trying to help young women pick up the pieces of lives that have been shattered by casual sex. These students—despite practicing "safe-sex"—ended up in her office distraught, devastated, and demoralized. Referring to her clients, she asks readers, "Why were they hurting?" and repeats her clients' haunting question: "What is wrong with me?" (cf. pp. 35–37).

Her experiences with these women led Grossman to research the latest science regarding sex, bonding, neurobiology, and the brain. She then investigated exactly what sex education experts actually teach our children and who is teaching it. Grossman discovered that sex education in America is composed of a vast network of programs, with the Sexuality Information and Education Council of the United States (SIECUS), Planned Parenthood, and Advocates for Youth at its center. She then pored over their guidelines and materials and visited many of the Internet sites these organizations recommend to teens. What Grossman found was an emphasis on ideology and little or no discussion of the science involved.

Grossman learned that the sex education curricula found in many of our schools expresses a deep-seated hostility toward chastity and religious views concerning sexual

relations. Grossman provides examples of children and teenagers being taught that sex of any kind is fun and safe. Consider, for example, the lesson suggested by Planned Parenthood—parents are instructed to tell five-year-olds about sexual intercourse, but are told they can wait to describe orgasm until the child has finished kindergarten. Regarding sadomasochism, educators may send teen girls to a website (http://www.gurl.com/) that says, "Though it may seem painful, those involved find the pleasure outweighs the pain" (p. 5). Alfred Kinsey is the long-ago-discredited founder of "sexology" who believed that sex between children and adults could be beneficial (p.22). Disturbingly, Grossman found that Kinsey's ideology has more influence over today's sex education than does the science of today's neurobiologists. Consider as an example the following from Wardell Pomeroy, former SIECUS president and associate of Alfred Kinsey: "In father-daughter incest, the daughter's age makes all the difference in the world. The older she is, the likelier it is that the experience will be a positive one. The 'best' sort of incest of all, surprisingly enough, is that between a son and a mother who is really educating him sexually, and who then encourages him to go out with girls" (p. 24).

Similarly disturbing SIECUS views stem from those of psychologist John Money, the discredited pioneering proponent of sex-reassignment, who promoted the myth that gender is separate from biology and that we are all psychological hermaphrodites until the age of three (p. 159). Today SIECUS and similar organizations go even further by claiming that it is normal for gender identity to be fluid throughout one's lifetime.

According to Grossman, not one comprehensive sex education resource made note of the latest science regarding bonding hormones, pheromones, and adolescent cognitive development. Other glaring omissions set forth by Grossman include the seriousness of the epidemic of sexually transmitted infections currently affecting young people, the greater risk of infection to girls under age twenty-one, the limitations of condoms, and the health risks of various sexual activities, including fringe behaviors. She further notes the complete absence within such "resources" of any discussion concerning the possibility of change of sexual orientation.

Two of Grossman's chapters discuss gender and today's politically correct emphasis on breaking down traditional views of men and women. She provides a careful review of studies that verify the existence of innate gender differences. She also provides a chapter detailing the costs and damage caused by the current plague of sexually transmitted diseases and the billions of dollars we spend each year dealing with the diseases caused by behavior patterns encouraged by our schools.

The only point with which we take issue is Grossman's slighting of abstinence education as being "moralistic" rather than focusing on healthy relationship building and family formation while providing skills that may help youth delay sex. She appears to overlook that "abstinence until marriage" programs are not moralistic in and of themselves—but rather, that they are factual—and that there are good studies documenting that a significant delay of sexual debut provides common benefits. On the other hand, Grossman properly advocates a program of preparation for marriage based on intentionality, self-respect, and dignity.

Overall, Grossman's research is impeccable. She provides an excellent bibliography, and her forty-eight pages of footnotes are a testimony to the care with which she has verified her assertions. Although critics may try to dismiss her work as that of a conservative ideologue, Grossman's careful documentation permits her to speak an unpopular truth and to provide a message that all of us need to hear. A well-known liberal psychologist, Dr. Nicholas A. Cummings, former president of the American Psychology Association, well describes our views about this excellent book in his endorsement on the back jacket:

> Dr. Miriam Grossman is a bright, bold, but solitary beacon revealing the avalanche of faulty sex education and counseling that is endangering the physical and emotional health of our young people and corrupting their futures. This is an alert that all parents must read, and an antidote that our young people can use against those so-called experts who would indoctrinate them.

Book Review of Joseph J. Nicolosi's *Shame and Attachment Loss: The Practical Work of Reparative Therapy*

By James E. Phelan, Arthur Goldberg, and Paul Popper*

* James E. Phelan, MSW, Psy.D., is a licensed, board-certified clinical social worker, certified addictions counselor, and author. Arthur Goldberg, J.D., is cofounder and codirector of JONAH, Jews Offering New Alternatives to Healing; president of PATH (Positive Alternatives to Homosexuality), a coalition of secular and faith-based organizations; and author of *Light in the Closet: Torah, Homosexuality, and the Power to Change.* Paul Popper, Ph.D., has been a practicing therapist for forty years and works in private practice. He has significant experience serving clients who are dealing with issues of sexual abuse and consulting on forensic psychology issues.

Joseph Nicolosi's newest book, *Shame and Attachment Loss: The Practical Work of Reparative Therapy* (Downer's Grove, IL: IVP Academic, 2009), is principally intended for therapists who want to counsel men who self-identify with ego-dystonic (unwanted) homosexuality.

Reparative therapy is the technical name for one of many approaches to psychological care for people with unwanted same-sex attractions and/or behaviors (SSA). It developed from the influences of psychodynamic theory and practice and has evolved notably through adapting the concepts and techniques of the brief dynamic psychotherapies.

Readers already familiar with any of the other approaches to therapeutic care for unwanted SSA will find helpful information about the theory and practices of reparative therapy. Readers unfamiliar with *any* therapeutic approach for unwanted SSA—as well as those either unfamiliar with dynamic psychotherapy in general and/or with the influence and treatment of shame and attachment loss issues—also will find this a worthwhile read.

As Nicolosi explains, "Homosexuality [is an] attempt to 'repair' a shame-afflicted longing for gender-based individualization" (p. 31)—hence the name *reparative therapy.* As early as 1976, Ethel Person was perhaps the first to identify the reparative component of homosexuality in a panel discussion at the American Psychoanalytic Association's annual meeting when she stated, "The nonsexual meaning of the homosexual encounter is a crucial issue in treatment. The homosexual act is frequently used to *repair* masculinity either through dependent gratification or domination" (Payne, 1977, p. 188; emphasis added). Another early pioneer in *reparative* as a therapeutic term was Elizabeth Moberly (1983).

Nicolosi writes as an experienced clinician: he has treated more than one thousand men with unwanted SSA (ego-dystonic homosexuality) and heads a clinic where 95 percent of the clients specifically seek psychological care for this presenting concern. In his book, he builds on the foundation of his prior works—*Reparative Therapy of Male Homosexuality* (Nicolosi, 1991) and *Healing Homosexuality: Case Stories of Reparative Therapy* (Nicolosi, 1993)—in which he conceptualized homosexual attraction in his clients

as a striving to repair gender deficits. In *Shame and Attachment Loss,* he now understands SSA more broadly as an effort to repair deep self-deficits and as a defense against trauma to the core self. After clarifying this theoretical reconceptualization, Nicolosi details how he works with men who say their homosexual attractions and/or behaviors are unwanted.

Nicolosi's evolving theoretical foundation of the etiology of homosexuality draws heavily on attachment theory, which conceptualizes the nature and importance of normative attachment in early childhood development. Ideally, attachment includes an attuned, salient mother and, later, father who work together to validate a boy's gender and move him toward masculine individuation. Initially, the mother's mirroring and attunement to the child creates a secure base from which the child can then identify with his father and feel a part of the "male tribe." If this process goes amiss and is coupled with the innate sensitivity found in some boys, homosexual yearnings/attractions may develop.

In clinical practice, Nicolosi and others have found that the majority of homosexually active men who seek change have had an intrusive/misattuned mother coupled with an emotionally distant and often antagonistic father—factors that interrupt proper attachment and related development. In cases of clients with older brothers, a large percentage of the older brothers were perceived as antagonistic toward or disinterested in their younger brothers—something that further alienates young boys from both their male peers and from men.

Building on the "classis triadic model" of the family, Nicolosi highlights the heavily narcissistic features in these families—features that he finds common in his clients' family backgrounds. Given these dynamics, Nicolosi has coined the term *triadic-narcissistic family*. He observes that the majority of his clients grew up in families where they were insecure and unsure of themselves because their parents often confused their own needs with the needs of their child, whose genuine needs were commonly unmet.

Nicolosi notes further that many of his clients find themselves stuck in a continuous state of "shame-based existence" in which they perceive they are not "seen" as or valued for who they really are, judge themselves to be less than their "idealized other(s)," and stay out of touch with

or alienated from their bodies/sensations/emotions. For these clients, homosexual experiences have become their primary means of coping with feelings of inadequacy—when, in reality, such experiences are only a temporary fix to their deeper problems. When these men found that their homosexual encounters did not meet their authentic needs and sense of self, and they sought therapy that they hoped—and discovered—could enable them to address these deeper issues.

According to Nicolosi, homosexual attractions and behaviors are triggered by an event that leads a man to experience shame according to the following sequence: Something happens that leads the client to experience (1) shame. Shame then leads to (2) the *gray zone,* a characterological defensive constellation of passivity, inhibition, avoidance, hiding, and similar reactions. The gray zone and its defensive constellation temporarily block the experience of shame yet create a feeling of unrest that begs for relief. Relief is sought through (3) homosexual enactment (acting out), which often results in more shame and may trigger the sequence to begin again.

The gray zone is experienced as a dull, paralyzing mood that traps the client, preventing him both from being aware of the preceding "shame moment" and from accessing the energizing—if painful—affect of true grief and/or moving into a more assertive state. The opposite of the gray zone is *assertion,* a state that empowers a client to avoid or overcome the paralyzing effects of shame and unresolved grief.

Without the help of a therapist, clients typically find themselves stuck in the gray zone rather than feeling and expressing the genuine grief (sadness, anger, and sorrow related to early attachment losses) against which their shame is a defense. Stuck in the gray zone, their only relief is homosexual enactment.

To assist clients in overcoming shame and attachment loss, Nicolosi advises therapists to help their clients identify their emotional mind-body states; he illustrates this process through many case studies. As the client becomes more conscious of these states, he can choose to interrupt instead of being automatically controlled by them. In a manner reminiscent of Gestalt therapy, Nicolosi facilitates clients' awareness by persistently

asking them to locate the somatic or affective feeling within their body and then guiding them to access and express the associated emotion(s). This process is called *body work*.

The work of reparative therapy involves a supportive counselor who can allow his client to experience authentic feelings (affects) about the present, here-and-now activity, and to then connect them to affects about his past. Nicolosi explains that the "goal . . . is to no longer act out [through homosexual encounters] his past hurts in the present but to experience those authentic feelings about the past while in the presence of the therapist" (p. 35). At the same time, both the therapist and the client need to stay attuned to each other in the "here and now" as they deal with affects left over from "there and then"—a situation Nicolosi calls the *double-loop experience*.

> When the therapist supports and encourages the client to open up, the client re-experiences those feelings and their associations while in the presence of an attuned other. He is then able to "take in" the new insights. His identified conflict is thereby redefined and transformed, imbuing it with a new, coherent meaning. (p. 35)

A seasoned and sensitive clinician, Nicolosi operates from a clear theoretical framework and integrates his choice of techniques/interventions to facilitate the actualization of this framework. His work, as demonstrated by the transcripts of actual sessions, shows his flexibility and sensitivity to the uniqueness of each of his clients. He honors the story and experiences recounted by the individual client and correctly recognizes that psychological change sought by his SSA clients often occurs through their ability to strengthen relationships rather than simply through the application of specific psychological techniques.

In addition, Nicolosi emphasizes that to be an effective reparative therapist, the clinician has to have conviction that the client has a latent heterosexual potential and capacity that will in time surface to greater or lesser degree. This experiential conviction of the therapist is a sustaining factor when the client becomes discouraged and full of

doubt as he faces the pain of his shame and the strength of his self-defeating escape strategies. Without this therapeutic belief, it is unlikely that a client who desires relief from unwanted SSA will feel fully supported, understood, or "seen."

The experience of Nicolosi and other practitioners shows how ego-dystonic homosexuality may be successfully addressed in treatment. "Success," however, does not necessarily mean a total eradication of same-sex attractions, desires, and/or arousals. It does mean that a client works through the gray zone and facilitates his resolution into grief, mourning, and ultimate assertion—a process that diminishes shame and enables the client to engage with life. Such changes are often accompanied by a lessening of homosexual yearnings, less envy of other males, and the development of heterosexual attractions, including an impulse to "move toward" women—all to a variable degree.

There is a lack of consensus about what constitutes the central components or dimensions of "sexual orientation" (attraction, behavior, fantasies, identification, or some combination of these elements) and how to best measure it. Most research in this area, supportive or not, is based on narrative reporting by therapists or clients of change or the lack of change. As documented by Nicolosi, change does take place and at times can be quite dramatic, resulting in full conversion to heterosexual yearnings. Such a finding is historically supported by the reports of many other therapists who have served ego-dystonic homosexuals (NARTH, 2009).

In this book, Nicolosi's major theoretical contribution is the integration of *attachment theory* with psychodynamic-based reparative theory. Moreover, as the title suggests, he focuses on what takes place practically between the client and the therapist. Examples of this may include:

- Providing body-focused therapy through verbal coaching
- Using grief work and accessing grief through facilitating the experience and expression of sadness or anger

- Dealing with core wounding
- Helping the client grieve the lack or loss of his relationships with his father, brother(s), and/or male peers
- Keeping the client simultaneously focused on the problem or conflict at hand, keeping the client attuned to the therapist, and paying attention to the sensations/emotions/affects the client experiences in his body (what Nicolosi calls the *triangle of containment*)
- Helping the client to experience and express anger in healthy ways and to manage interpersonal conflict more assertively and constructively in ways that respect and meet the authentic needs of himself and others
- Supporting the client in developing and maintaining mutually supportive, non-erotic male friendships
- Facilitating any issues with his mother or other significant women in his life, and helping him develop mature, mutually satisfying relationships with women

Nicolosi also addresses the issue of homosexuality and biological factors. While he does not support the widespread media opinion that people are "born" homosexual (indeed, no "gay gene" or other mechanism for "biological determinism" of homosexuality has ever been identified [cf. Whitehead & Whitehead, 1999]), he acknowledges that biology likely plays a role in gender-identity formation. Nicolosi postulates that boys with a propensity toward hypersensitivity—a possible neuro-biological predisposition for some, often referred to as a characteristic of their temperament—may be more susceptible to developing homosexuality if that hypersensitivity is coupled with lack of parental attunement in child-rearing. He also hypothesizes that a sensitive boy's shame response to parental mal-attunement may also negatively affect areas in the developing brain that are associated with gender-identity formation.

It should be acknowledged that while the body of knowledge and practice presented in this book is based on his work with a limited population of self-referred,

inner-conflicted, SSA men, Nicolosi at times over-generalizes the theory, findings, and effectiveness of reparative therapy to all homosexuals. For example, he conceptually traces how his clients have evolved their gay identities in four steps: 1) insecure attachment to mother, 2) defensive detachment from father, 3) defensive reparative eroticization of the "other," and 4) social/cultural construction of a gay identity. He then presents this as a theory that applies to all gay men. As another example, he discusses the role of the lack of secure attachment and resultant shame, which he has found in a majority of the clients he has treated; he then categorically declares that "we see homosexuality as a narcissistic solution to a shame problem" (p. 34). Such assertions have not been established scientifically as applying to *all* homosexuals and detract from the otherwise professional and sensitive tone and presentation of this book. To be fair, however, Nicolosi's tendency to generalize appears no less extreme than other psychodynamic-inspired theorists, such as Alfred Adler, who wrote that homosexuals overcompensate to an inferiority complex toward their own gender (Stein, 2003).

In 1973, the American Psychiatric Association removed homosexuality from the category of pathological conditions in the DSM—a move that resulted in a questioning of the legitimacy, effectiveness, and ethicality of change-oriented interventions. As a result, discussion and research on these interventions have significantly decreased in the mainstream mental health arena. Even though most mental health associations have abandoned such discussions, Nicolosi demonstrates once again that he has taken the baton and kept running, refusing to let an array of sometimes harsh critics prevent him from serving an increasingly marginalized population: those who experience homosexuality as an unwanted experience and who want competent therapeutic help to deal with unwanted feelings and behaviors. For clinicians who want to understand a new depth and breadth of clinical work aimed at clients who want to overcome ego-dystonic homosexuality, Nicolosi's dedicated work remains invaluable, and his new book is an unmatched and worthy read.

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Book Review of *Hooked: New Science on How Casual Sex Is Affecting Our Children*

By Christopher H. Rosik*

* Christopher H. Rosik, Ph.D., is a psychologist and director of research at the Link Care Center and is a member of the clinical faculty at Fresno Pacific University. In addition to being a full-time practitioner, he has published more than forty articles and book chapters, including several relating to the ethical and professional aspects of providing psychological care for unwanted same-sex attraction and behavior.

Physicians J. S. McIhaney and F. M. Bush have written this short but fact-filled book, aptly titled *Hooked*: *New Science on How Casual Sex Is Affecting Our Children* (Chicago, IL: Northfield Publishing, 2008), to make the general public aware of emerging scientific understanding of brain development as it pertains to adolescent sexuality. The authors give clear and easy-to-read insight into how nature has intended human beings to function optimally and why sexual behavior is reserved for marriage.

A unique contribution of the book is the authors' assertion that in addition to pregnancy and STDs, a third risk of casual sex among youth has to do with how sex affects the development of the brain. Defining sexual activity as "any intimate contact between two individuals that involves arousal, stimulation, and/or a response by at least one of the two partners" (p. 16), they then describe research into the crucial effects of dopamine, oxytocin, and vasopressin following sexual activity.

Dopamine is the neurotransmitter that causes a person to feel good when he or she does something exciting or rewarding, such as engage in sex or undertake dangerous, thrill-seeking behavior. It helps guide human behavior through reinforcement, particularly in the brains of adolescents. However, as the authors note, dopamine is also values-neutral—when released in response to sexual activity, it promotes emotional bonding whether the context for that sexual activity is a one-night stand or a lifelong mate. This consequently leaves young people unwittingly at risk for becoming attached (thus "hooked") to an undesirable partner.

Meanwhile, oxytocin, a hormone in the brain that promotes bonding in females, exerts a powerful influence via sexual activity. The authors observe:

> When two people touch each other in a warm, meaningful, and intimate way, oxytocin is released into the woman's brain. The oxytocin then does two things: (1) increases a woman's desire for more touch and (2) causes bonding of the woman to the man she has been spending time in physical contact with. (p. 37)

This bonding is so influential that it can cloud the woman's judgment regarding her partner.

> If a young woman becomes physically close to and hugs a man, it will trigger the bonding process, creating a greater desire to be near him and, most significantly, place greater trust in him. Then, if he wants to escalate the physical nature of the relationship, it will become harder for her to say no. (p. 39)

Once established, this connection cannot be undone without great emotional pain.

The neurohormone vasopressin does for men what oxytocin does for women—except it not only bonds the man to his mate, but also promotes his attachment to his children. From their analysis of modern neuroscience, McIhaney and Bush conclude that, in a manner similar to females, male adolescents and young men who engage in casual sex

> do not realize that this pattern of having sex with one woman and then breaking up and then having sex with another woman limits them to experience only one form of brain activity common to humans involved sexually—the dopamine rush of sex. They risk damaging a vital, innate ability to develop the long-term emotional attachment that results from sex with the same person over and over. . . . The individual who goes from sex partner to sex partner is causing his or her brain to mold and gel so that it eventually begins accepting that sexual pattern as normal. . . . The pattern of changing sex partners therefore seems to damage their ability to bond in a committed relationship. (p. 48)

The authors then provide a clarifying metaphor for this process: the inability to bond after multiple sexual relationships is akin to trying to use the same strip of adhesive tape repeatedly; after repeated uses, the tape is no longer sticky enough to adhere to anything. The kind of attachment damage that occurs after repeated sexual encounters is, in many

respects, more pernicious than pregnancy or STDs, because it typically goes unperceived by affected individuals while causing ongoing difficulties in establishing a lifelong and satisfying relationship. Weighing all of the scientific evidence, the authors conclude that human sexuality is thus designed to function best when a man and woman come to marriage without having worn away their brain's "adhesive potential" through a history of past sexual partners.

Hooked does *not* imply that a woman who shows affection for a man once or even several times will experience such a flurry of neuro-hormonal reactions that unchangeable attachment to this man will invariably result. A single hug in itself is unlikely to forever change her neuro-chemistry and behavior toward all of the future men with whom she may interact. Rather, the book suggests that one hug is more like taking a drink of alcohol than like having a lobotomy.

For most if not all women, the effect of giving and receiving affection is more like drinking alcohol—in other words, the effect is real, but initially it is only temporary. However, staying with the alcohol metaphor, consuming enough alcohol over time may cause a lobotomy-like reaction in the brain—making it extremely difficult, if not impossible, to undo the effects, at least without great emotional pain. Transferring that to a sexual context, the more often a man and woman engage in physical intimacy, the more intensely the woman is likely to become attached to the man. Of course, some individuals may be more or less prone to such neuro-hormonal reactions, depending on their unique bio-psycho-social endowment, something that includes their past relationship history.

Overall, McIhaney and Bush have done a great service by putting this information into the hands of the general public, thereby providing scientific support for traditional sexual morals that have been taught for millennia. In addition to commentary on the effects of sexual behavior, the authors offer sound practical advice to parents and those who are entrusted with guiding youth through the "land mines" of emotional, relational, and sexual development. The authors stick solely to the science of the matter and do not

engage in moralizing or religious persuasion, making this book ideal for high school or college health teachers—and even religious leaders—who want a scientific basis for their faith-based values surrounding sexual behavior.

Clinically, reading *Hooked* promises to enable therapists and their clients to better understand the biochemical reasons why prior non-marital sexual activity of any kind creates difficulty in achieving committed relationships and faithful marital sexual relations.