

Letterhead of Dr. Katherine Kot Lam Kat

Aug 14, 2001

Subcommittee to study discrimination
on the basis on sexual orientation

Dear subcommittee members,

In response to the invitation by your committee for written paper to the legCo panel on the issue of homosexuality, enclosed please find a copy of the Informed Report on the Issues of Homosexuality. The purpose of the report is to provide a thorough literature surveys on the origins of homosexuality - from the biological, psychological and social perspectives. Apart from this, further issues such as homosexuality and child molestation, sexual orientation and adjustment of the children of homosexuals, and homosexuality and psychopathology are also reviewed.

The research findings do not substantiate a biological theory of sexual orientation, on the other hand many studies and evidence support the view that sociological and psychological factors provide crucial influences and contribution to the development of homosexual orientation. In addition, based on the results of the studies, homosexual group poses a higher risk for child molestation, psychopathology and mortality. Consequently, I do not agree with passing the law against discrimination on the ground of sexual orientation.

I would appreciate an opportunity if possible to present my view in person on August 20,2001. I have also enclosed separately a brief Chinese shorten summary for those who may not require a full report.

Thank for your kind attention.

Yours Sincerely,

Katherine Kot, Psy. D.

Clinical Psychologist

***INFORMATIVE REPORT:
ISSUES ON HOMOSEXUALITY***

Presented by Dr. Katherine Kot

Clinical Psychologist

August, 2001

Informative Report: Issues on Homosexuality

I. Introduction

Concurrent with the civil rights movement advocated by the homosexual in Hong Kong, there has been an increased interest by the government to study discrimination based on the ground of sexual orientation. One of the key justifications by the homosexuals in advocating for civil rights protection is the biological basis of such behavior, which is beyond personal choices.

The current debate over the origins of homosexuality involves controversial data dealing with genetic research pointing to the question whether sexual orientation derives from nature or nurture. It is, therefore, the purpose of this paper to review the results reported by the different surveys and studies in order to form a sound perspective on this particular issue regarding the origins of homosexuality. Evidences in support of a biological basis of homosexuality in three interrelated categories-genetic evidence, the prenatal neurohormonal hypothesis, and neuroanatomical evidence are reviewed. Sociological surveys and psychological explanations to the origin of homosexuality also are examined. In addition, surveys and studies on the mutuality of sexual orientations are incorporated to aid further understanding as to whether homosexual orientation is firm, irreversible and predetermined at early age in life.

Apart from the discussion of the origins of homosexuality, further issues such as child molestation and homosexuality, sexual orientation and adjustment of the children of homosexuals, and homosexuality and psychopathology are also reviewed in order to

provide a comprehensive overview on the issues of homosexuality.

II. The Origins of Homosexuality

A. Biological Explanations for Homosexuality

1. Genetic Evidence

While demonstrating that homosexuality is familial (occurs more frequently in families) is no proof that genetics alone play a role in such behavior, it does suggest the possibility of genetic influences. An attempt to get at the possible genetic basis of homosexuality have been studies in which concordance rate for homosexuality between monozygotic (MZ) and dizygotic (DZ) twins since MZ twins develop from the same fertilized egg, they shared a common genetic history. Thus, if one such twin exhibit a homosexual life-style, one would expect a higher incidence rate in MZ co-twins than in DZ co-twins, as the latter are no more genetically alike than sibling. Kallmann (1952) reported a concordance rate of 100% for sexual orientation among MZ twins. However, Kallmann subsequently conjectured that this perfect concordance was an artifact, possibly due to the fact that his sample was drawn from mentally ill and institutionalized men. Some subsequent studies have failed to find any concordance for homosexual orientation in men or women (Parker, 1964; Koch, 1964) while others have found concordance rate between 10% and 50% (Heston, Shields, 1968; Pillard & Weinrich, 1986; Bailey & Benishay, 1993). Unfortunately, these studies either have involved very small numbers of twin pairs or have studied twins who were raised together from birth, making it difficult to determine the relative contributions of genetics and environment.

One of the frequently cited twin study is by Bailey and Pillard (1991) included 56

homosexual male probands with MZ co-twins and 54 homosexual probands with DZ co-twins. They found the probandwise concordance rate to be significantly greater for MZ (52%) than DZ (22%) twins, a finding that is not consistent with a genetic explanation. Furthermore, the fact that the concordance rates were similar for non-twin biological brothers (9.2%) and genetically unrelated adoptive brothers (11%) is at odds with a simple genetic hypothesis, which would predict a higher concordance rate for biological siblings.

The fact that fraternal twins of gay men were roughly twice as likely to be gay as other biological brothers show that environmental factors are involved, since fraternal twins are no more similar biologically than are other biological brothers. If being a fraternal twin exerts an environmental influence, it does not seem surprising that this should be even truer for identical twins, who would think of as 'the same' and treat accordingly, and who often share those feelings of sameness (Hubbard & Wald, 1993, p.97).

In an identically designed study, Bailey, Pillard, Neal and Agyei, (1993) reported findings for women were similar in that the concordance rate of female homosexuality among MZ twins was 38%, DZ was 15%, and adoptive sisters was 3%. Follow-up research of Bailey, Dunne, and Martin (2000) refutes their earlier findings that the MZ concordance rate were 20% for men and 24% for women, which were almost half or less of the estimates of their earlier researches. The authors suggest that the concordance from prior studies were inflated because of their methodological flaws. Most importantly, all sizable twins studies of sexual orientation recruited probands by means of advertisements in homophile publications or by word of mouth (Bailey & Pillard, 1995).

Interpretation of the studies of Bailey and Pillard is also hampered by other flaws such as the validity of the study rests on the veracity of the assumption that trait-relevant environment is equal for MZ and DZ twin pairs. "While available research supports the

accuracy of this ‘equal environment assumption for intelligence and certain personality trait, there is no direct evidence that it holds for sexual orientation’ (Bayne and Parsons, 1993, p.230). McGuire (1995) concluded that virtually none of the research projects dealing with a genetic basis for sexual orientation are without serious design or methodological deficits and consequently their findings remain tentative and speculative.

Another study published by King and McDonald (1992) found concordance rates for MZ twins would be 10% or 25%, depending on whether or not the bisexuals were included with the homosexuals, while the rates for the DZ twins would be 8% or 12%.

King and McDonald summarized their own study as follows:

Discordance for sexual orientation in the monozygotic pairs confirmed that genetic factors are insufficient explanation of the development of sexual orientation. There was a high level of shared knowledge of sexual orientation between members of twin pairs, and a relatively high likelihood of sexual relations occurring with the same sex co-twins at some time, particularly in monozygotic pairs (p.407).

Another study published by Eckert, Bouchard, Bohlen, and Heston (1986) also supports the evidence that identical twins are not necessarily concordant for sexual orientation.

Thus, these findings would seem to indicate clearly that genetic factors by themselves are insufficient explanations for the development of homosexuality.

“Authorities in the field of genetics have expressed considerable doubt about the validity of studies attempting to demonstrate that homosexuality is genetically or biologically heritable (Cameron, et al., 1996, p.396). Bayne and Parsons of the New York Psychiatric Institute concluded after critical review of the “evidence favoring a biological theory” by commenting, “ There is no evidence at present to substantiate a biological theory of sexual orientation” (1993,p.228).

2. Prenatal Neurohormonal Hypothesis

Since the turn of the century, the belief that sexual orientation is determined by adult hormone constitution was popular until the middle to late 1970's. It has now fallen into disfavor because sensitive hormonal assays have failed to demonstrate a correlation between sexual orientation and adult hormonal constitution. Furthermore, "hormonal therapies have failed to influence sexual orientation in adults and there is also no evidence that sexual orientation has shifted in adults as a consequence of changes in androgen or estrogen levels induced by gonadal neoplasm, trauma, or surgical removal" (Byne and Parsons, 1993, p.230).

Ellis and Ames (1987) have proposed that human sexual orientation is largely determined between the second and fifth month of gestation due to fetal exposure to testosterone, its primary metabolite estradiol, and other sex hormones. Their theory is challenging, and they surveyed an impressive array of research to support their ideas, the majority of which come from laboratory animal studies. However, their logic is debatable. Their argument is that (a) it is possible to produce sex inversions, including homosexual erotic preference, by prenatal hormonal manipulations in animals, (b) there is no conclusive evidence showing that postnatal hormonal or psychosocial factors cause human homosexual orientation, and (c) human epidemiological studies of the incidence of homosexuality are not compatible with their theory; leading them to conclude that (d) human erotic inversion is prenatally determined.

In contrast to Ellis and Ames' ideas, Money (1987) has concluded that "there is no human evidence that prenatal hormonalization alone, independently of postnatal history, inexorably preordains ... [homosexuality]. Rather, neonatal antecedents may facilitate a homosexual ... orientation, provided the postnatal determinants in the social and

communicational history are also facultative” (p.398). In other words, prenatal influences may provide a push in the direction of homosexuality, but there is no conclusive evidence that this push is powerful enough to be considered determinative, and there is no evidence that this push is present for all homosexuals. The research for postnatal hormonal factors also indicated that no major hormonal or physiological differences between heterosexuals and homosexuals (Friedman, 1988; Tourney, 1980).

3. Neuroanatomical Evidence

A natural extension of the interest in prenatal neurohormonal influences is the role such influences play in establishing adult differences in neuroanatomy and how such differences may relate to sexual orientation. The study that has probably had the greatest impact on the belief that the brains of homosexuals are structurally different than non-homosexuals is that by LeVay (1991). In this study, LeVay found that the third interstitial nucleus of anterior hypothalamus (INAH-3) was much smaller in homosexual than in heterosexual men. He came to the conclusion by a postmortem examination of the brains of autopsied patients who had been classified as homosexual on the basis of their pre-existing medical records.

While these findings do report structural differences in portions of the brains of homosexual and heterosexual men, it is not clear whether possible brain differences are the result of genetically induced differences or behavior induced biological changes (Gabard, 1999). A number of concerns were addressed (Cole, 1995; Byne & Parsons, 1993). The first concern is the accuracy of defining groups (homosexual and heterosexual) since the medical records of the patients lacked detailed information about

the sexuality of the patients. Second, many of the homosexual men had died from AIDS, and one cannot rule out entirely the effect of the virus on the INAH-3, quite independent of the role such a structure may play in sexual orientation. Finally, one might ask whether the smaller size of the INAH-3 in homosexual men is the cause or consequence of their sexual orientation? Other researchers, such as Allen and Gorski (1992) and Swaab and Hofman (1990) have found differences in brain structures between homosexual and heterosexual men, however, their studies are subject to same criticism. In conclusion, Cole (1995) stated that “the evidence would argue against the notion that a single brain structure causes or is somewhat related to homosexuality” (p.95)

B. Psychological Explanations to the Origins of homosexuality

According to Bieber (1976), who has worked exclusively with male homosexuals in therapy, suggested that male homosexuality was the consequence of serious disturbances during childhood development. A boy may have a father who is distant, cold, unavailable, or rejecting, and a mother who is overly warm, smothering, and controlling. As a result of the rejection of the father, the boy's desire to identify with the father is frustrated, and the seeds of both fear and a longing for closeness to a male are planted. The smothering relationship with the mother further decreases the likelihood of the boy establishing a complete male identity. Bieber and others have thus argued that heterosexual activities are avoided due to the fear of the aggressiveness of other males with whom the boy is competing. At the same time, the boy is attracted by other men because of his longing for closeness to another male. Bieber's theory is based on clinical work and research with nearly 1,000 male homosexuals. His research meets

with varying responses in the mental health community, ranging from outright dismissal to total acceptance. Judd Marmor (1980) also confirmed that family background appears to facilitate the development of homosexual orientation, but does not determine it and is not the only casual factor.

Behavioral hypotheses regarding the development of homosexuality suggest that early erotic and other learning experiences shape erotic orientation. A child who is homosexually seduced may use that experience as the basis for subsequent sexual fantasy and dreaming and, by beginning to define himself as homosexual, may selectively choose subsequent homosexual interactions even when heterosexual options are available.

Storm (1981) had argued that erotic orientation is typically solidified during adolescence through the interaction of sex drive and experience. In normal social development, boys turn from same-sex friendships to mixed gender relationships around the time of puberty. This aids the development of heterosexuality, in that boys have greater exposure to girls at about the same time when sex drive begins to blossom. Since the onset of sex drive is undirected, early onset of sex drive can lead to direction of sexual urges at other boys since this is who the child is around. Storms cited data supporting his theory such as the greater incidences of homosexuality in populations where early sex drive onset occurs. Storm also argued that lesbianism has a lower incidence than male homosexuality because girls experience later onset of sex drive than boys.

Jones and Workman (1989) also brought in two important body of evidence contributing to the understanding of the origins of homosexuality. Denniston (1980) concluded from his research of the homosexual behaviors in the animal kingdom that

homosexual behavior “occurs in every type of animal that has been carefully studied... it has little relation to hormonal or structural abnormality...It is behavioral conditioning that is directive, with hormones playing a permissive or generalized activating role “ (P.38-39). It further seems that most homosexual behavior in the animal kingdom occurs in the context of interaction between dominate and subordinate animals, under conditions of unavailability of other sex sexual partners, or under such stressors as crowding. Second, homosexual behavior occurs to some extent in all known human cultures, but the form it takes varies from culture to culture.

C. Sociological Explanations to the Origins of Homosexuality

The surveys of Kinsey and his associates in 1948 and 1953 claimed to present for the first time an accurate picture of the incidence of various sexual behaviors in the population. From these surveys, Kinsey did derive a theory of the origin of homosexuality, but did not report it in the volumes of 1948 and 1953. His theory was simply that early intense sexual experiences, if present, tended to be repeated. For Kinsey, organism was organism, and its source was almost irrelevant, so he believed that early same-sex experience could lead to later homosexuality (Pomeroy, 1972).

Bell and his associates (1981) used path analysis to examine the origins of homosexuality. The result of their survey indicated that childhood gender nonconformity turns out to be a very strong predictor of adult sexual preference among the males in their sample. Homosexual genital activities in childhood has no direct path to adult sexual preference, rather sexual feelings more than sexual activities appear to have been crucial in the development of adult homosexuality. The conclusions about

development of adult homosexuality for lesbians and bisexuals were less clear than for male homosexuals, but suggested the importance of childhood gender nonconformity and poor relationships with parents. In conclusion, Bell et al. (1981, p.191-192) stated: “What we seem to have identified... is a pattern of feeling and reactions within the child that cannot be traced back to a single social or psychological root; indeed homosexuality may arise from a biological precursor.

Another study using path analysis to examine the origins of homosexuality is by Van Wyk and Geist (1985). A particularly interesting feature of this work was that they gained access to the original Kinsey data on which were based the books published in 1948 and 1953. They eliminated those probands whose sexual preference was incongruous with their behavior and others with non-standard attractions. They also eliminated those under age 18 at the date of the interview, prisoners, non-USA citizens, and those with particularly unusual sexual inclination. The Kinsey surveys did not ask the same questions as Bell et al. (1981). In the 1940s theories of the origins of homosexuality had not crystallized to the extent they did later, and in any case Kinsey was trying to be as empirical as possible. Therefore, it might be expected that the questions asked would be less relevant to the origins of homosexuality. These data tended to emphasize the development of sexuality generally rather than homosexuality particularly.

The following accounted for a small percentage of the total variance. For males: male companion at age 10 (8.2% of the variance), female companion at age 10 (5.8%), male companion at age 16 (2.8%), no sports participation (4.5%), body contact sports participation (1.8%), poor relationship with father (3.9%), learning masturbation by being

masturbated by a person of the same sex (7.2%), and learning homosexuality from experience rather than other means (6%). For female: male companion at age 10 (4.3%), female companion at age 10 (2.4%), learning about masturbation by being masturbated by a person of the same sex (3%), and learning about homosexuality at younger ages (4.3%). In summary, post-pubertal sociosexual behavior was most prominent as a predictor of adult homosexuality, followed by sociosexual arousal and early sexual experience. Family variables were overall non-significant. Neil Whitehead (1996) commented that probably the small percent of variance for a poor relationship with fathers may be due to the only one question asked about relationship with father during the high school, by most clinical theories, far too late to have affected any subsequent development of homosexuality. The path analysis accounts for 36% of the variance for females and 78% for males. However, like the work of Bell et al. (1981), much of this was due to the adolescent experience, which rather easily followed into adulthood.

Although the factors studied seemed rather different, Van Wyk and Giest (1985) concluded "The degree of similarity between the results of this study and that of Bell et al. (1981) is striking" (p.532). In each case, sexual experience variables accounted for the most variance, followed by gender-related variables and family-related variables in that order." They theorize that children may be born and grow up looking slightly like the opposite sex and may start to think they are homosexual. If they lack the socialization appropriate to their sex, e.g., shunned by their same-sex peers, they may not become interested in the opposite sex later. Further, when childish sex play "becomes more intense, going into specific masturbation, oral-genital contact, or coitus, or when the contact becomes sexually arousing, or leads to orgasm, what occurs does begin to show

relationships with adult sexual preference” (Van Wyk & Giest, 1985, p.535). “He or she tends to continue to fantasize about and participate in the first type of satisfying or arousing activity to the exclusion of others” (p.536). However, for girls, early intense sexual activity with a much older member of the opposite sex was also a predictor of lesbianism.

The sociological findings, if correct, appeared to strike a strong blow at many traditional theories of the origins of homosexuality, because most of the traditional factors were poor numerical predictors. However, Neil Whitehead (1996) correctly pointed out one flaw that was not pointed out by the authors, the assumption that the factors being tested were independent and did not interact. For example, there is no way childhood gender nonconformity can occur simultaneously with homosexual adolescent activities. But the childhood variables all could influence one another, and similarly the adolescent variables. “The statistical effect this has is to reduce the importance of the individual factors even more and the links between them, and would seem to strengthen the author’s case further --i.e., that the causes for the probands as a whole have not been identified” (N. Whitehead, 1996, p.330).

Neil Whitehead further pointed out several issues. The assumption that Kinsey’s scores are normally distributed whereas in actuality the distribution of the scores is U-shape. In the Bell et al. (1981) study, the sampling procedure itself is problematic and the ignorance of the significant difference found between those who had been in therapy and those who had not. Factors such as negative relationship with father, or lack of identification with father, were stronger for the clinical population. Bell et al. (1981) basically argued that the therapists had talked them into it. However, other studies on

non-clinical populations have supported the idea that poor father identification is significantly more common (Apperson & McAdoo, 1968; Evans, 1969). “It also seems possible that those who come for therapy are affected more strongly by pre-adult circumstances and show the origins of homosexuality more clearly” (N. Whitehead, 1996, p.331). Lastly, Whitehead concluded that it is conventional wisdom amongst those working in the field of this type of statistical analysis, that explaining about 30% of the variance is typical and fairly satisfactory and the factor contributing a few percent of the variance may still be significant. Thus, in that case, the disappointment of Bell et al. (1981) at not finding stronger factors is not truly justified. Path analysis in general seems to be indicative, but not conclusive.

Neil Whitehead (1996) suggested a number of reasons for the conflicts which lessen the gap between path analysis and other psychological theories. First, clinical populations are somewhat different from those in random surveys. Most of those who are affected in extreme ways by their upbringing and experiences will be in clinical group, and will exhibit a more vivid representation of factors found only weakly present in the general population such that surveys may have difficulty detecting them statistically. Second, if two or three out of ten possible predisposing factors are enough to create an adult homosexual inclination, statistical correlations can be weak for a group as a whole, yet, individual factors might still be quite strong for those who experienced them. Third, personal sexual experiences vary widely and are in essence unique to each person. Non-shared experience may be crucial factors affecting the development of homosexuality, just as it is most influential in personality development.

Lesbian relationships, on the other hand, have been called emotional rather than

erotic (Faderman, 1981). Faderman argues the term lesbian describes “a relationship in which two women’s strongest emotions and affection are directed toward each other. Sexual contact may figure “to a greater or lesser degree,” or be “entirely absent.” Clinicians have remarked about the phenomenon of “fusing” in lesbian relationships. Nicholas (1990) says fusion appears to be very common in lesbian relationships and describes it as “an extreme version of the kind of closeness and intimacy in which all women are trained so well.” Kaufman et al. (1984) found fused lesbian relationships were characterized by “extreme and intense ambivalence” (p.530). Intense attachment but brief means length of lesbian relationships is consistent with this simultaneous attachment-detachment dynamic. Briar Whitehead (1996) argues that lesbianism is primary a defensive rejection of a female identity together with a compensating drive to re-connect, somewhat in the way a bulimic rejects her essential food and stuffs herself. The drive to re-attach gives lesbianism its characteristic “fusion,” but it wars with a deep-seated defense mechanism that separates the lesbian from the very thing she seeks.

Moberly (1983) postulates something occurs early in a child’s life to disrupt the attachment to same-sex parent, thus interfering with the process of gender identification and role-modeling that occurs naturally through that attachment. The child defensively backs away from the identificatory love source, setting the stage for difficulties that will continue to block the identificatory process. The underlying needs for love from, dependency on, and identification with the same-sex parent continue, as what Moberly calls the “reparative love urge.” But this reparative drive is blocked by the aversion/hostility (which both led to the defensive detachment and maintains it), creating a “same-sex ambivalence.” Moberly argues this ambivalence continuing repressed and

unresolved in the personality diffuses out into general relationships with the same sex and is essentially the homosexual condition. Disidentification from the same sex manifests itself in instability and disruption in same-sex relationships, and the reparative urge in homosexual attachment.

Though psychoanalytic and social learning theorists may differ on the details of early heterosexual development, they are united on the generalities: attachment, dependency, identification and role-modeling based initially around the parent of same-sex are the chief contributors to a growing child's gender identity, and then followed by the child's relationships with peers and other social interaction (Kohlberg, 1966). Studies of the childhood and adolescence of lesbians tend to show breakdown in attachment, identification, and role modeling, first with same-sex parent, and then with other girls. Experiences with males tend to be negative. By late teenage these girls are strongly emotionally and sometimes erotically attracted to certain kinds of women. Bell, Weinberg, and Hammersmith (1981) find numerous empirical studies show a tendency for lesbians to have poorer mother-daughter relationships than heterosexuals.

Nicolosi (1991) makes a link between poor same-sex parent-child bonding and a male child's inability to fit in his same-sex peer group. The same pattern appears to hold for female children and to intensify with time. Lesbian memories of childhood and adolescent same-sex peer group relationships are often painful. Bell et al. (1981) comment that "childhood gender nonconformity" -- feeling "different" from one's same-sex peers was the second strongest predictor of later homosexuality in females.

Additional factors such as male sexual abuse and past relationships with men are also significant. However, males who have been indifferent or abusive appear to be a

strongly reinforcing factor in lesbianism; they do not make the prospect of heterosexual intimacy attractive (B. Whitehead, 1996).

Van Wyk and Gist (1984) found higher homosexual scores among girls who had learned to masturbate by being masturbated by a female (the effect was slight but significant), and who found thought or sight of females, but not males, arousing by age 18. Bell et al. (1981) found adolescent homosexual activity their strongest cursor of adult homosexuality, but added that such adolescent activity appeared to be the beginning of adult homosexual activity rather than a causative factor. Moberly (1983) argues that unmet emotional needs tends to become eroticized. Bell et al. drew up a path analysis for lesbianism in which three causal pathways closely completed for the first place. All routed through negative same-sex parental relationship, childhood gender nonconformity, and adolescent homosexual involvement. The strongest path ran: unpleasant mother, hostile rejecting mother, negative identification with mother, childhood gender nonconformity, adolescent homosexual involvement and adult homosexuality.

III. The mutability of sexual orientation

In addressing the controversial issue of whether sexual orientation can be altered or modified, studies of research affirm the mutability of sexual orientation. Kinsey (1941) observed:

Any hormonal or other explanation of the homosexual must allow... that the picture is one of endless integration between every combination of homosexuality and heterosexuality; ...coincidentally in the single period in the life of a single individual; and that the exclusive activities of any one type, may be exchanged, in the brief span of a few days or a few weeks, for an exclusive pattern of the other type, or into a combination pattern that embraces the two types (p.428).

More recent survey of sexual behavior also confirm and reinforce Kinsey's point that homosexual are not exclusive in their affection or behavior, that their orientation is not as firm and irreversible, and that sexual orientation is not necessarily predetermined early in life (Eckert, Bouchard, Bohlen, and Heston,1986).

The National Opinion Research Center (NORC) study found that there was wide variance in the incidence of homosexuality among various religious groups, suggesting that belief and 'lifestyle' are strongly determinant factors in sexual preference and behavior. Additionally, for those who lived in large cities when they were aged 14 to 16 years, 7.3% of the men and 4.6% of women had engaged in homosexual activities; whereas the figures were 2.2% for males and 4.3% for females. In view of this comparison, NORC researchers speculated that "increased opportunities for and fewer negative sanctions against same-gender sexuality may both allow and even elicit expression of same-gender interest and sexual behavior" (p.308).

Another survey conducted by Ramafedi, Resnick, Blum, and Harris (1992) on sexual orientation among 34,706 seventh through twelfth graders in Minnesota. They found 1.6% of 12-year-olds reported a homosexual or bisexual orientation compared with only 0.8% of 18-year-olds. Since 12-year-olds in this study were twice as apt to claim a homosexual or bisexual orientation as were 18-year-olds, this may indicate confusion by young respondents over what was meant by "orientation.": However, it may also suggest that half of the homosexual orientation at age 12 decided to abandon homosexuality entirely within a six-year period.

The latter view is consistent with other well-known studies, one of which was

conducted by Bell, Weinberg, and Hammersmith (1981) of 979 homosexuals who were compared with 477 heterosexuals. In this study, 85% of the homosexuals vs 25% of the heterosexuals reported a shift in their sexual feelings or behavior after their first appraisal of their sexual orientation (p.90); 64% of homosexuals vs 7% of the heterosexuals reported a second sexual preference shift (p.91); 37% of the homosexuals vs 3% of the heterosexuals reported a third shift (p.93); and 18% of the homosexuals vs 1% of the heterosexual reported yet another shift in preference (p.94).

In a survey of 4340 adults, Cameron, Proctor, Coburn, and Forde (1985) reported that 0.3% of those who currently considered themselves heterosexual reported once having been in a homosexual 'marriage.' Further, 0.7% of currently self-designated heterosexual males and 0.4% of currently self-designated heterosexual females "admitted to on-going homosexual relationships" (p.297). Similarly, 32% of currently self-designated bisexual or homosexual males and 47% of self-designated bisexual or homosexual females had been or were heterosexually married.

Another important factor that needs to be taken into consideration is the result of the two-year study by the National Association for Research and Therapy of Homosexuality (NARTH). According to Nicolosi (1997), the study was conducted among nearly 860 individuals struggling to overcome homosexuality and more than 200 psychologists and therapists who treat them. Among the study's significant findings is a documented shift in respondents' sexual orientation, as well as the frequency and intensity of their homosexual thoughts and actions. Specifically, the survey indicated that before treatment, 68% of respondents perceived themselves as exclusively or almost entirely homosexual, with another 22% stating they were more homosexual than

heterosexual. After treatment, only 13% perceived themselves as exclusively or almost entirely homosexual, while 33% described themselves as either exclusively or entirely heterosexual. Although 83% of respondents indicated that they entered therapy primarily because of homosexuality, 99% of those who participated in the survey said that they now believe treatment to change homosexuality can be effective and valuable.

As a group, those surveys reported statistically significant decreases following treatment in the frequency and intensity of their homosexual thoughts (from 63% before treatment to 3% after treatment), in the frequency of masturbation to gay pornography (from 42% masturbating “very often” before treatment to 2% after treatment), and in the frequency of their homosexual behavior with a partner (from 30% very often before treatment to 1% after treatment). Respondents also indicated that, as a result of treatment and sexual orientation changes, they were also improving psychologically and interpersonally.

According to the psychotherapists surveyed, 82% said that they believe therapy can help change unwanted homosexuality. They further indicated that on average, one-third to one-half of their patients had adopted a primarily heterosexual orientation. More than 95% of the psychotherapists said that they either strongly agreed or somewhat agreed with the statement that homosexual patients may be capable of changing to a heterosexual orientation. “Clearly this research validates homosexuality as a psychological condition, rather than a genetic or hereditary one,” said Nicolosi, calling previous studies of the brain and genetic material the work of gay political activists. “We should stop telling young people and others struggling with homosexuality that they’re stuck with it. Instead we should say, ‘If you want to change, you can, like so many

others who have” (Nicolosi, 1997, p.1-2).

The result of a telephone interview of 200 homosexuals who claim to have changed to heterosexuals by Spitzer (2001) also reported similar findings. Spitzer assessed changes in sexual orientation measure between the 12 months before subjects began their effort to change, and the 12 months prior to the interview. The change of average sexual attraction by males was from scale 91 to 23 and from scale 88 to 8 for females. They also reported a decrease in homosexual indicators from 29% to 11 % by males and 63% to 37% by females. 66% of the males and 44% of the females had good heterosexual function in the 12 months prior to the interview and even for those who were extreme on combined homosexual indicators. For the 56 subjects who had regular heterosexual sex reported a significant increase in satisfying emotional relationship with opposite sex partner and satisfying sexual relationship with opposite sex. Contrary to what was often said that trying to change orientation often lead to depression, in fact there is a marked decline in depression after their effort to change.

The result of the NARTH's and Spitzer's studies revealed an important truth that the origins of homosexuality cannot be fully accounted for genetic cause as the possibility for change of sexual orientation has been demonstrated through intense psychotherapy. Concurrently, the biological researches reported also conclude a lack of evidence of any genetic cause to homosexual behavior. However, the hypothesis that the genetical make-up may facilitate or provide a push in the direction of homosexuality is still uncertain.

On the other hand, the findings of the sociological surveys discussed earlier indicate that negative same-sex parental relationship, childhood gender nonconformity,

and adolescent homosexual involvement are significant predictors of adult sexual preference. This conclusion seems to affirm the result of the NARTH's and Spitzer's studies that homosexual orientation can be changed through intensive therapy.

IV. Evidence concerning child molestation

The Psychological Reports (1985) which encompassed 19 psychiatric and forensic studies, published a comprehensive review of scientific literature on child molestation by homosexuals. The author concluded that "a third of all the reported child molestations involve homosexual acts" (Cameron, 1985, p.1227). This estimate is consistent with the other studies such as the 36% reported by Freund, Heasman, Racansky, and Glancy (1984) in their study of 457 molesters in Toronto, Canada and the 28% reported by Erickson, Walbek, and Sely (1988) in their study of 229 male child molesters in Minnesota. Erickson, et al. (1988) attempted to assure that their sample were representative of "statewide experience" (p.81) and ask the molesters to describe their own "orientation. Their results supported the commonly held beliefs that most "males who molest male children are homosexuals" and that type of sexual behavior is mostly synonymous with sexual orientation (Cameron, et al. (1996).

A random survey of 750 young men in Calgary, Canada held by Bagley, Wood, and Young (1994) reported that 117 (16%) males were molested before the age of 17 mostly by adult males. Twenty four (20.5%) of the 117 who had been molested said they were interested in and 16 (13.7%) reported having sex with boys age 15 or under. This result is significant as compared to 14 (2.6%) of the 633 non-molested who were interested in and none who reported having sex with boys that old.

Additional scientific evidence reported by clinicians according to the results of their clinical experience also supported that men who molest children are disproportionately homosexual. Dr. C. H. McGagy (1971) estimated that “homosexual offenders probably constitute about half” of molesters who work with children (p.23). Dr. Adrian Copland, a psychiatrist who worked with sexual offenders at the Peters Institute in Philadelphia, responded to Boston Globe that pedophiles tend to be homosexual and that “40% to 45%” of child molesters have had “significant homosexual experience” (Bass, 1988). Dr. Fred Berlin-head of the National Institute for the study, Prevention, and Treatment of sexual trauma- stated that he believed about “50%” of the pedophiles are homosexual during an interview by the Baltimore City Paper in 1995 (Montoyama, 1995).

Other empirical studies also support that men who molest children are disproportionately homosexual. A random survey of 3132 adults in Los Angeles in 1983-4 reported that 3.8% of men and 6.8% of women had been sexually assaulted in childhood (Siegel, Sorenson, Golding, Burnam, & Stein, 1987). Among the 149 respondents who had been assaulted, the 61 who were most recently assaulted before age 16 were asked the gender of their assailant. According to Cameron, et al. (1996), J. Siegel stated that “approximately 31% of the assaults must have been between persons of the same sex, i.e., behaviorally homosexual (p. 387). Another a random telephone survey of 2628 adults across the United States by Los Angeles Times reported that 7% of the molestations of girls and 93% of the molestations of boys were by adults of the same sex, approximately 39% of the molestations were behaviorally homosexual (Timnick, 1985).

In addressing the issue whether homosexual teachers pose a threat to their students, several empirical studies indicate that such a threat does exist. In a survey conducted by Hechinger and Hechinger (1978) among 1400 principals about complaints regarding sex between teachers and pupils, 7% reported complaints about homosexual contact between teachers and pupils and 13% reported complaints about heterosexual contact between teachers and pupils. Approximately 35% of these complaints involved homosexual activities. Among the 199 cases of sexual abuse incidences by teachers in 10 states of U. S. that resulted in formal discipline, Rubin (1988) reported that 122 male teachers had abused female pupils and 59 male teachers had abused male pupils; also 14 female teachers had abused male students, and four female teachers had abused female students. Approximately 32% of the incidences involve homosexual activities.

Cameron and Cameron (1995) completed a survey of 5182 persons over the age of 17 in six metropolitan areas on the questions whether they had a homosexual teacher and whether the teacher had made advances toward them. Among the 21 % of 4021 who had had a homosexual teacher, 12% of the males and 4% of the females reported that the teacher had made such a sexual advance. Over 20% (n=201) of the ones who had had homosexual teacher also claimed that they were influenced by the teacher to regard homosexual activity as socially acceptable and 4% stated that the teacher influenced them to try homosexual activities. About 1% (n=59) reported that as students they had sexual interactions with their teachers and within which 24% of the sexual interactions were homosexual. This study concluded that not only former students of homosexual teachers frequently claim that the teachers had encouraged them to accept and try homosexual activity, also homosexual adults in the survey more frequently reported

having studied under a homosexual teacher than did heterosexual adults (4.6% vs 1.2%). Furthermore, the percentage of homosexual adults reported homosexual activities with a teacher is higher than the heterosexual adults reported heterosexual sex with a teacher (3.4% vs 1%).

In conclusion, a persuasive body of the scientific studies suggests that those who engage in homosexual activities are more proportionately more apt to molest children. In addition, it also supports that homosexual teachers are proportionately more likely to make sexual advances towards children than heterosexual teachers.

V. Sexual orientation and adjustment of the children of homosexuals

Another issue of concerns to be addressed would be whether homosexual parents tend to produce homosexual children and the adjustment of the homosexual children. Bailey, Borrow, Wolfe & Mikach (1995) examined the sexual orientation of adult sons of gay fathers and reported that 9% of 75 sons of homosexual fathers were bisexual or homosexual. This percentage is “several times higher than that suggested by the population-based surveys” (Bailey, et al., 1995 P.127-128).

Similarly, Bigner (1991) who has been extensively involved in published studies of homosexual parenthood, stated that about “88%” of homosexual children tend to “develop a heterosexual orientation while 12% tend to develop a homosexual orientation” (p.57). Patterson (1992) who has published eight studies, reported that of the 169 children of gay and/or lesbians whose orientation could estimated or determined, at least 15 (8.9%) were non-heterosexual.

On the issue of the adjustment of homosexual children, Javaid (1993) compared the

26 children of 13 lesbians with the 28 children of 15 divorced heterosexual mothers and found that both the lesbian mothers and their sons were more uncomfortable to talk about mother's homosexuality. Two of the boys chose to "live with their fathers so that they would not have to deal with their mother's lesbian lifestyle" (p.243). Also the majority of the children would not tell their peers about their mother's lesbianism. Apart from having to maintain a sense of secrecy, children brought up concerns such as: "the fear of mother losing custody; choosing to live with dad because 'I couldn't cope with it'; 'lost a friend because mom is gay'; peers' name calling and teasing; a desire to hide all signs of mom's homosexuality; a wish that she wasn't a lesbian or her lover wasn't there; using euphemism, e.g. calling her lover a room-mate" (p.243).

The Lewis (1980) published a study of the 21 children of eight lesbians in major professional journal of amici National Association of Social Workers stated that:

The older teenagers also worried about the reactions of their peers, although their major concerns focused on their sexual preferences. They could better deal with the question of whether homosexuality is personally chosen or genetically determined. Although none of them rationally thought there is any genetic basis for homosexuality – that is, that it is predetermined – this sense filtered through (p.133).

The boys' reactions followed different themes. Several were furious, not, they claimed, at their mother's homosexuality, but at her lover. Some were embarrassed by the stereotypical 'butch-femme' relationship they thought the two women had. This seemed to be a thin veil over their bruised self-esteem (p199-200).

This last study has been cited and summarized by Appeals Courts in both Kentucky (S. v S, by Ky App., 608 S.W.2d 64 [1980]) and Tennessee (Dailey v Dailey, Tenn. App., 635 S.W.2d 391 [1982]) in custody disputes involving lesbians mothers:

This article points out that the fact the lesbianism of the mother, because of the failure of the community to accept and support such a condition, forces on the child a need for secrecy and the isolation imposed by such a secret, thus separating the

child from his or her peers (p.666).

In conclusion, a body of scientific studies conducted by different teams of investigators agree that homosexual parents appear to produce a disproportionately percentage of bisexual or homosexual children. These studies also support a concern that children of homosexual mothers had a more difficult adjustment with their mother's lesbianism and experience a sense of isolation from their peers.

VI. Professional opinion on homosexuality as a pathology

Although it is true that the professional associations of major U.S. mental health professions have declared homosexuality as non-pathological, there is still "a significant body of research which suggests that homosexual conduct is associated with psychological and social danger, dysphoria, and excess morbidity and mortality" (Cameron, 1996, p.392).

The homosexual group was reported to have a history of suicide attempts, more excessive drinking, and greater utilization of psychotherapy services, and a history of mental difficulties and drug use for female homosexual groups (Gentry, 1970a, 1970b). Saghir and Robins (1973) also reported greater alcohol abuse in the female homosexual group and homosexuals had fewer stable love relationships (p.54, 224-225), were more frequently arrested for non-sex offenses (p.166-167, 308), and more frequently had attempted suicide (p.118, 276-277). Other studies also supported that lesbians appear to be at greater risk for alcohol abuse than heterosexual women (Mosbacher, 1988, Anderson and Henderson, 1985). Bell and Weinberg (1978) found higher rates of loneliness and depression in homosexual as opposed to heterosexual samples and also a

higher rate of attempted suicide. They also stated that both homosexual men and women were more likely to have been arrested than heterosexuals (p.189,192), homosexual men reported more psychosomatic symptoms than did heterosexual men (p,198), and that homosexual women reported less happiness than heterosexual women (p.215). Saunders and Valente (1987) reported that homosexuals attempt suicide more frequently than heterosexuals and implicated higher risk factors such as alcohol abuse and interrupted social ties.

Prytula, Wellford, and Demonbreun (1979) reported more psychological problems during adolescence for young homosexual men. Roesler and Deisher (1972) found a higher rate of adolescents suicide attempts in gay men and lesbians. Kourany (1987) also stated that in a survey of psychiatrists who work with adolescents, reported the impression that homosexual adolescents suicide attempts were more severe.

Reports on life satisfaction have been considered as a sign of psychological well-being (Bradburn, 1969). The NORC study conducted by Laumann, Gagnon, Michael, & Michaels, 1994) on approximately 3000 heterosexuals and 63 homosexuals. When they were asked how happy have they been with their personal life during past 12 months, 60.8% of heterosexuals vs 46.7% of homosexuals said that they were “extremely” or “very happy,” and 11.5% of heterosexuals vs 19.5% of homosexuals said that they were “fairly unhappy” or “unhappy most of the time.” Likewise, homosexuals rated their recent personal lives as more unhappy than the divorced and about as unhappy as the impoverished considered theirs. These results are similar to the reports of Weinberg and Williams who found their homosexual samples in three countries “report less happiness and less faith in others than the general sample” (p.200).

In addition to the mental and emotional problems discussed, homosexuals are also more likely to suffer from a host of morbid conditions including sexually transmitted diseases, e.g. gonorrhea, syphilis, hepatitis A and B, anorectal venereal warts, and cytomegalovirus (Ernst & Houts, 1985) and AIDS.

Two-thirds of homosexuals are male who are considerably more sexually active than lesbians. Bell and Weinberg found that among the gays, the following practices were in order of frequency: Oral-genital (95%); mutual masturbation (80%); insertive anal intercourse (80%); and receptive anal intercourse (70%). Among lesbians, the most common technique was mutual masturbation (80%) and oral genital contact (80%). Homosexual practices frequently result in significant trauma to the rectum and sphincters (Barone, Yee, & Nealon, 1983).

The anus is a one-way valve, stimulated to open only by pressure from the inside, and stimulated to contract by pressure from the outside. The cumulative effect of anal intercourse is to cause dysfunction of the anal sphincter muscle and the result is chronic incontinence of urgency of defecation for about one in three men who engage in the practice. Once past the anus the danger of physical trauma worsens. Irritation of the sensitive rectal mucus layer causes a host of reactions, including diarrhea, cramps, hemorrhoids, prostate damage, and ulcers and fissures which in turn invite infection. The thin layer of the rectum is easily perforated and its insensitivity to pain can lead to serious complications before a person is aware of them. Extensive surgical procedures are often required to repair damage caused by insertion of the penis, the finger or other objects into the rectum (Cox, 1997 lecture note).

Further, lesbians seem to contract sexually transmitted disease at higher rates than heterosexual women (Stevens, 1993, 1994).

There are also reports of a higher mortality rate among homosexuals. Cameron, Playfair, & Wellum (1994) collected over 7500 obituaries from the homosexual press and mainstream newspaper reported that homosexuals on the average seem to lead a sharply abbreviated lives. It has been found that married and never divorced men had a median

life span of 75 years, yet 5745 homosexual men who died of AIDS had a median life span of 39 years, and the 829 who did not die of AIDS had a median life span of 42 years.

Based on the results of these studies, one might conclude that homosexuals displayed more pathological symptoms – disproportionately involved in various kinds of substance abuse, including IV drugs (Ross, Gold, Wodak, & Miller, 1991) and alcohol (Skinner, 1994), contemplating suicide, being arrested, and being sexually unfaithfully (Cameron, Cameron, and Proctor, 1989). A homosexual lifestyle also associated with more morbidity and mortality as it poses “a significantly increased risk of suffering, death, pain, disability, or an important loss of freedom” (Cameron, et al., 1996).

VII. Conclusion

The discussion presented earlier regarding the origins of homosexuality -- nature or nurture, is an attempt to draw a sound perspective on this issue. The research data reported so far do not substantiate a biological theory of sexual orientation. Research studies on the mutability of sexual orientation also support the fact that homosexual orientation is not firm, irreversible, and predetermined at early age in life.

Bayne and Parsons (1993) have proposed an interactional model for sexual orientation that designates genetics as an influencer of personality traits that in turn affect the way a person molds the environment as sexual orientation unfolds in a developmental fashion. Anne Fausto-Sterling (1985) explains that a single behavior may have many causes and even though biology may affect behavior, behaviors in turn have the ability to alter one’s physiology. Ruth Hubbard (1990) offers the observation that the social prescription of sex-appropriate behaviors and activities has an effect on virtually all body

systems. All these findings do suggest that sociological and psychological factors provide crucial influences and contribution to the development of homosexual orientation.

The psychological and sociological explanations to origins also match with the persuasive body of the scientific studies suggests that those who engage in homosexual activities are more proportionately apt to molest children and that homosexual teachers are proportionately more likely to make sexual advances towards children than heterosexual teachers. Furthermore, research also found that homosexual groups are more likely to exhibit a history of suicide attempts and being arrested, excessive alcohol and drug uses, loneliness, and depression. In terms of life satisfaction, homosexuals also reported feeling less happy. In comparing with the heterosexual men, homosexual men have a higher rate of mortality and pose a higher risk of suffering, death, pain, and disability.

These findings are congruent with the natural design of the human sexuality, whether from a evolutionary theory or wholeness/health concept, homosexual activities reduce reproduction, or promote harmful sexual practices. For those who believe in evolutionary theory, the likelihood of a genetic cause for homosexuality is remote. Recent data showing homosexuality tied to a reduced life-span (Cameron, Playfair, & Wellum, 1994), plus the fact that homosexuals produce fewer children, renders genetic etiology well-nigh impossible. According to Darwin's natural selection hypothesis, genetic mutations producing traits that promote survival (and almost all mutations do the opposite) will proliferate in a population, leading to an increased number of persons with these characteristics. The opposite is true of homosexuality. Commenting on the July,

1993 study purportedly suggesting a gay gene, Professor Miron Baron of the Department of Psychiatry, Columbia University College of Physicians and Surgeons, wrote that “from an evolutionary perspective, genetically determined homosexuality would have become extinct long ago because of reduced reproduction” (Baron, 1993).

Last but not the least, the numerous incidences and case studies found that through intensive therapy and a desire to change, homosexuals reported changes in sexual attraction, having heterosexual functioning, and decline in depression. All these data do support the notion that sociological and psychological factors provide a crucial and major contribution to the development of homosexual orientation.

In conclusion, I do present concerns to the conclusion that homosexual orientation are biologically or genetically caused and for this information to be inaccurately incorporated in the teaching material for the Hong Kong school education. Also studies have also found that homosexual parents tend to produce homosexual children and consequently negatively impacting the psychological and social adjustment of these children. The issue of having parents who are homosexuals raises major difficulties for the adopted children’s psychological well-being and the development of positive self-esteem.

REFERENCE

- Allen, L. S., & Gorski, R. A. (1992). Sexual orientation and the size of the anterior commissure in the human brain. Proceedings of the National Academy of Science, USA,89, 7199-7202.
- Anderson, S. C., & Henderson, D. C. (1985). Working with lesbian alcoholic. Social Work,31, 518-525.
- Apperson, L. & McAdoo, G. (1968). Parental factors in the childhood of homosexuals. Journal of Abnormal Psychology,73, 201-206.
- Bagley, C., Wood, M. & Young, L. (1994). Victim to abuser: Mental health and behavioral sequels of child abuse in a community survey of young adult males. Child Abuse and Neglect,18, 683-697.
- Bailey, J. M., & Benishay, D. S. (1993). Familial aggression of female sexual orientation. American Journal of Psychiatry,150, 272-277.
- Bailey, J. M., Borrow, D., Wolfe, M., & Mikach, S. (1995). Sexual orientation of adult sons of gay father . Developmental Psychology,31, 124-129.
- Bailey, J. Michael, Martin, Nicholas, G., & Dunne, Michael P. (2000). Genetic and environmental influences on sexual orientation and its correlates in an Australian twin sample. Journal of Personality and Social Psychology,78 (3), 524-536.
- Bailey, J. M. & Pillard, R. C. (1991). A genetic study of male sexual orientation. Archives of General Psychiatry ,48 1089-1096.
- Bailey, J. M. & Pillard, R. C. (1995). Genetics of human sexual orientation. Annual Review of Sex Research,6, 126-150.
- Barone, J. E., Yee, J., & Nealon, T. F. (1983) Management of foreign bodies and trauma

- of the rectum. Surgery, Gynecology & Obstetrics,156, 453-457.
- Bass, A. (1988, August,8). Child abuse by strangers is called rare. Boston Globe, Metro, p.1.
- Beckwith, Francis J. (Ed.) (1996) Do the right thing. Sudbury, M.A.: Jones and Barlett.
- Bell, A. P., & Weinberg, M.S. (1978). Homosexualities: A study of diverse among men and women. New York:Simon and Schuster.
- Bell, A. P., Weinberg, M. S., & Hammersmith, S. K. (1981). Sexual preference: Its development in men and women. Bloomington, Indiana:Indiana University Press
- Bieber, J. (1976). A discussion of homosexuality: The ethical challenge. Journal of Consulting and Clinical Psychology,44, 163-166.
- Bieber, J. O. G., Tanfer, K., Gardy, W. R., & Klepinger, D. H. (1993). The sexual behavior men in the United States. Family Planning Perspectives,25, 52-60.
- Binger, J. J. (1991, January 30) Sexual orientation has little effect on good parenting. Rocky Mountain News, p.57 (letters).
- Buhrich, N., & Loke, C. (1988). Homosexuality, suicide and parasuicide in Australia. Journal of Homosexuality,15, 113-129.
- Byne, William & Parson, B. (1993). Human sexual orientation: The biological theories reappraised. Archives of General Psychiatry,50, 228-239.
- Byne, William (1997). Why we cannot conclude that sexual orientation is primary a biblical phenomenon. Journal of Homosexuality,34 (1), 73-80.
- Cameron, P., & Cameron, K. (1995). Do homosexual teachers pose a risk to pupils? Paper presented at the Eastern Psychological Association, Boston, April.
- Cameron, P., Cameron, K., & Proctor, K. (1989). Effect of homosexuality upon public

- health and social order, Psychological Report,64, 1167-1179.
- Cameron, Paul, Cameron, Kirk, & Landess, Thomas (1996). Errors by the American Psychiatric Association, the American Psychological Association, and the National Educational Association in representing homosexuality in amicus briefs about Amendment 2 to the U. S. Supreme court. Psychological Reports,79, 383-404.
- Cameron, P., Playfair, W. L., & Wellum, S. (1994). The longevity of homosexuals: Before and after the AIDS epidemic. Omega,29, 249-272.
- Cameron, P., Proctor, K., Coburn, W., & Forde, N. (1985). Sexual orientation and sexually transmitted disease. Nebraska Medical Journal,70, 292-299.
- Cameron, P., Proctor, K., Coburn, W., Forde, N., Larson, H., & Cameron, K. (1986). Child molestation and homosexuality. Psychological Reports,58, 327-337.
- Cole, Sherwood O. (1995). The biological basis of homosexuality: A Christian assessment. Journal of Psychology and Theology.23 (2), 89-100.
- Cox, Paul M. (1997). Lecture Notes for Seminar in Ethical Issues. Unpublished.
- Dahir, Mubarak (2001). Why are we gay? Advocate, 7/17, 30-40
- Denniston, R. (1980). Ambisexuality in animals. In J. Marmor (Eds.) Homosexual behavior: A modern reappraisal (pp.25-40). New York:Basic.
- Eckert, E. D., Bouchard, T. J., Bohlen, J., & Heston, L. L. (1986). Homosexuality in monozygotic twins reared apart. British Journal of Psychiatry,148, 421-425.
- Ellis, L. & Ames, M. A. (1987). Neurohormonal functioning and sexual orientation: A theory of homosexuality – heterosexuality. Psychological Bulletin,101, 233-258.
- Erickson, W. D., Walbek, N. H., & Sely, R. K. (1988). Behavior patterns of child molesters. Archives of Sexual Behavior,17, 77-86.

- Ernst, R. S., & Houts, P. S. (1985). Characteristics of gay persons with sexually transmitted disease. Sexuality Transmitted Disease,12, 59-63.
- Evans, R. (1969). Childhood parental relationships of homosexual men. Journal of Consulting and Clinical Psychology,33, 129-135.
- Faderman, L. (1981). Surpassing the love of men. London:Junction Books.
- Fausto-Sterling, A. (1985). Myths of gender: Biological theories about women and men. New York: Basic Books Inc.
- Freund, K., Heasman, G., Racansky, I. G., & Glancy, G. (1984). Pedophilia and heterosexuality vs. homosexuality. Journal of Sex and Marital Therapy,10, 193-200.
- Friedman, R. (1988). Male homosexuality. New Haven, CT: Yale University Press.
- Gabard, Donald, L. (1999). Homosexuality and the human genome project: Private and public choices. Journal of Homosexuality,37 (1),25-51.
- Gideonse, Ted (1997). Are we an endangered species? Advocate,734, 28-31.
- Hechinger, G., & Hechinger, F. M. (1978). Should homosexuals be allowed to teach? McCall's,105 (6), 100f.
- Hershberger, Scott, L. (1997). A twin registry study of male and female sexual orientation. Journal of Sex Research,34 (2) 212-223.
- Heston, L. L., Shields, J. A. (1968). Homosexuality in twins. Archive General Psychiatry, 18, 149-160.
- Hubbard, R. (1990). The politics of women's biology. New Brunswick: Rutgers university Press.
- Hubbard, R., & Wald, E. (1993). Exploding the gene myth: How genetic information is produced and manipulated by scientists, physicians, employers, insurance

companies, educators, and law enforcers. Boston, MA: Beacon.

Javaid, G. A. (1993). The children of homosexual and heterosexual single mothers.

Child Psychiatry and Human Deveoplment,23 235-248.

Jones, Stanton L. & Workman, Don E. (1989). Homosexuality: The behavioral sciences and the church. Journal of Psychology and Theology.17 (3), 213-225.

Jones, Stanton J. (1999). The incredibly shrinking gay gene. Christianity Today.43 (11), 53-54.

Kallmann, F. J. (1952). Comparative twin study on the genetic aspects of male homosexuality. Journal of Nerv Ment Dis,115, 238-298.

Kaufman, P.A., Harrison, E., & Hyde, M. (1984). Distancing for intimacy in lesbian relationships. American Journal of Psychiatry,141 (4), 452-533.

King, M., McDonald, E. (1992). Homosexuals who are twins: A study of 46 probands. British Journal of Psychiatry,160, 407-409.

Kinsey, A. C., Pomeroy, W. B., & Martin, C. E. (1948). Sexual behavior in the human male. Philadelphia:W. B. Saunders.

Kinsey, A. C.,Pomeroy, W. B., Martin, C. E. & Gehhard, P. H. (1953). Sexual behavior in the human female. Philadephia:W. B. Saunders.

Koch, G., (1965). Die Bedeutung genetischer faktoren fur das menschliche verhalten. Arztl Prax,17, 839-846.

Kohlberg, L. (1966). A cognitive-developmental analysis. In E. E. Maccoby (Ed.). The development of sex differences (pp.82-173). Standford, CA:Standford University Press.

Kourany, R. F. (1987). Suicide among homosexual adolescents. Journal of

Homosexuality,13 111-117.

- Laumann, E. O., Gagnon, J. H., Michael, R. T., & Michaels, S. (1994). The social organization of sexuality: Sexual practices in the United States. Chicago, IL:University of Chicago Press.
- Le Vay, S. (1991) A difference in hypothalamic structure between heterosexual and homosexual men. Science,253, 1034-1037.
- Lever, J. (1995). Lesbian sex survey. Advocate, Nos. 687/688, 22-30.
- Lewis, K. G. (1980). Children of lesbians: Their point of view. Social Work,25, 198-203.
- Mappes, Thomas A. & Zembaty, Jane S. (Ed.) (1997). Social ethics. Fifth edition. New York: The McGraw-Hill Companies.
- Marmor, J. (1980). Clinical aspects of male homosexuality. In J. Marmor (Eds.) Homosexual behavior: A modern reappraisal (pp.267-279). New York: Basic.
- McGagy, C H. (1971). Child molesting. Sexual Behavior,1 16-24.
- McGuire, T. R. (1995). Is homosexuality genetic? A critical review and some suggestions. Journal of Homosexuality,28, 115-145.
- Moberly, E. R. (1983) Psychogenesis. The early development of gender identity. London:Routledge & Kegan Paul Ltd.
- Money, J. (1987). Sin, sickness, or status? Homosexual gender identity and psychoneuroendocrinology. American Psychologist,42, 384-399.
- Montoyama, S. (1995, August 23) Chickenhawk: A pedophile explains his obsession. City Paper, Baltimore, MD, 18-23.
- Mosbacher, D. (1988). Lesbians alcohol and substance abuse. Psychiatric Annals,18, 47-50.

- Muir, J.G. (1996). Sexual orientation – born or bred? Journal of Psychology and Christianity,15 (4), 313-321.
- Nichols, M. (1990). Lesbian relationships: Implications for the study of sexuality and gender. In D. P. McWhirter, S. A. Sanders, & J. M. Reinisch (Eds.), Homosexuality/heterosexuality (pp.350-364). New York:Oxford University Press.
- Nicolosi, J. (1991). Reparative therapy of male homosexuality. Northvale, NJ:Jason Aronson Inc.
- Nicolosi, Joseph. (1997). New study confirms homosexuality can be overcome. National Association for Research and Therapy of Homosexuality.
- Parker, N. (1964). Homosexuality in twins: A report on three discordant pairs. British Journal of Psychiatry,110, 489-495.
- Patterson, C. J. (1992) Children of lesbian and gay parents. Child Development,63, 1025-1042.
- Pillard, R. C. & Weinrich, J. D. (1986). Evidence of familial nature of male homosexuality. Archive of General Psychiatry,43, 808-812.
- Pomeroy, W. B. (1972). Dr. Kinsey and the Institute for Sex Research. London:Thomas Nelson and Sons.
- Prytula, R. E., Wellford, C. D., & Demonbreun, B. G. (1979). Body self-image and homosexuality. Journal of Clinical Psychology,35, 567-572.
- Rae, Scott B. (1995). Moral choices. Grand Rapids, MI: Zondervan.
- Remafedi, G., Resnick, M., Blum, R., & Harris, L. (1992). Demography of sexual orientation in adolescents. Pediatrics,89, 714-721.
- Roesler, T., & Deisher, R. (1972). Youthful male homosexuality: Homosexual experience

and the process of developing homosexual identity in male aged 16 to 22 years.

Journal of the American Medical Association, 219, 1018-1023.

Ross, M. W., Gold, J., Wodak, A., & Miller, M. E. (1991). Sexually transmissible diseases in injecting drug users Genitourinary Medicine, 67, 32-36.

Rubin, S. (1988). Sex education: Teachers who sexually abuse students. Paper presented at the 24th International Congress of Psychology, Sydney, Australia.

Saghir, M. T., & Robins, E. (1973). Male and female homosexuality: A comprehensive investigation. Baltimore, MD: Williams & Wilkins.

Saghir, M. T., Robins, E., Walbran, B., & Gentry, K. A. (1970a) Homosexuality: III. Psychiatric disorders and disability in the male homosexual. American Journal of Psychiatry, 126, 1079-1986.

Saghir, M. T., Robins, E., Walbran, B., & Gentry, K. A. (1970a) Homosexuality: IV. Psychiatric disorders and disability in the female homosexual. American Journal of Psychiatry, 127, 147-154.

Saunders, J. M., & Valente, S. M. (1987). Suicide risk among gay men and lesbians: A review. Death Studies, 11, 1-23.

Siegel, J. M., Sorenson, S. B., Golding, J. M., Burnam, M. A. & Stein, J. A. (1987). The prevalence of childhood sexual assault: The Los Angeles Epidemiologic Catchment Area Project. American Journal of Epidemiology, 126, 1141-1153.

Skinner, W. F. (1994). The prevalence and demographic predictors of illicit and licit drug use among lesbians and gay men. American Journal of Public Health, 84, 1307-1310.

Spitzer, Robert, L. (2001). 200 Subjects who claim to have changed their sexual orientation from homosexual to heterosexual. Presented at the American Psychiatric

Association Annual Convention, New Orleans.

Stein, Terry S. (1997). Deconstructing sexual orientation: Understanding the phenomena of sexual orientation. Journal of Homosexuality,34 (1),81-86.

Stevens, P. E. (1993). Lesbians and HIV: Clinical, research, and policy issues. American Journal of Orthopsychiatry,63, 289-294.

Stevens, P. E. (1994). HIV prevention education for lesbians and bisexual women: A cultural analysis of a community intervention. Social Science and Medicine,39, 1565-1578.

Storms, M. (1981). A theory of erotic orientation development. Psychological Review,88, 340-353.

Swaab, D. F., & Hofman, M. A. (1990). An enlarged suprachiasmatic nucleus in homosexual men. Brain Research, 537, 141-148.

Timnick, L. (August 25-26, 1985). 22% in survey were child abuse victims. Los Angeles Times, A1.

Tourney, G. (1980). Hormones and homosexuality. In J. Marmor (Ed.). Homosexual behavior: A modern reappraisal (pp41-58). New York: Basic.

Van Wyk, P. H., & Geist, C. S. (1985). Psychosocial development of heterosexual, bisexual and homosexual behavior. Archives of Sexual Behavior,13, 505-544.

Whitehead, Briar (1996) Lesbianism: Causality and compassion. Journal of Psychology and Christianity.15 (4), 348-363.

Whitehead, Neil E. (1996) What can sociological surveys contribute to the understanding of the causation of homosexuality? Journal of Psychology and Christianity.15 (4), 322-335.

Yeoman, Barry (1999). Gay no more? Psychology Today,32 (2) 26-33.