

PATHOPHYSIOLOGY OF MALE HOMOSEXUALITY

Prepared for the
Committee to Study Homosexuality of The United Methodist Church
by James W. Holsinger Jr., M.D.
Committee Member
January 14, 1991

During the course of the meetings of the Committee to Study Homosexuality, "biology" has come to mean the non-psychological causation of homosexuality. However, biology also means "the division of physical science which deals with organized beings or animals and plants, their morphology, physiology, origin, and distribution" (Oxford English Dictionary, 1971). I believe that we must seriously consider the scientific disciplines of anatomy (structure or morphology), physiology (function), pathology (abnormal anatomy), and pathophysiology (abnormal function). Not to do so would simply fail to be true to our charge as a committee.

There is absolute concensus in the scientific community concerning the structure and function of the human alimentary and reproductive systems. These two systems are absolutely separate since the human does not possess a cloaca. Reproduction can occur only by utilizing the reproductive system, requiring both the female ovum (egg) and the male sperm. Ova are fertilized naturally in the fallopian tubes of women following sexual intercourse by the sperm which transits through the vagina and uterus following release from the penis. Although artificial methods are available and used, the anatomy and physiology of humans have resulted in a natural means for conception.

The structure and function of the male and female human reproductive systems are fully complementary. Anatomically the vagina is designed to receive the penis. It is lined with squamous epithelium and is surrounded by a muscular tube intended for penile intromission. The rectum, on the other hand, is lined with a delicate mucosal surface and a single layer of columnar epithelium intended primarily for the reabsorption of water and electrolytes. The rectum is incapable of mechanical protection against abrasion and severe damage to the colonic mucosa can result if objects that are large, sharp, or pointed are inserted into the rectum (Agnew, 1986).

The anus and rectum, unlike the vagina contain no natural lubricating function. Thus insertion of unlubricated objects or inadequate dilation of the anus before insertion of a large object can result in tissue laceration. "The internal and external anal sphincters are elastic rings of muscle which generally remain tightly constricted except during defecation. The anal sphincters are also intended for material to pass through them in a direction that leads out of the body. When an attempt is made to insert something in the reverse direction, the muscles of the sphincter constrict" (Agnew, 1986).

From the perspective of pathology and pathophysiology, the varied sexual practices of homosexual men have resulted in a diverse and expanded concept of sexually transmitted disease and associated trauma. " Four general groups of

conditions may be encountered in homosexually active men: classical sexually transmitted diseases (gonorrhoea, infections with *Chlamydia trachomatis*, syphilis, herpes simplex infections, genital warts, pubic lice, scabies); enteric diseases (infections with *Shigella* species, *Campylobacter jejuni*, *Entamoeba histolytica*, *Giardia lamblia*, hepatitis A, hepatitis B, hepatitis non-A, non-B, and cytomegalovirus); trauma (fecal incontinence, hemorrhoids, anal fissure, foreign bodies, rectosigmoid tears, allergic proctitis, penile edema, chemical sinusitis, inhaled nitrite burns, and sexual assault of the male patient); and the acquired immunodeficiency syndrome (AIDS)" (Owen, 1985).

A study of sexually transmitted diseases in heterosexuals, bisexuals and homosexuals reported from Copenhagen in 1988 (Christopherson), demonstrated that the profile of diseases was strongly correlated to sexual lifestyle. "Amoebiasis and giardiasis were found respectively in 31.9% and 13.8% of homosexuals. None of the heterosexuals had pathologic protozoa...Among males with homosexual partners, 14% had rectal infections. Gonococcal and chlamydial infections were equally frequent. Three percent had symptomatic anorectal herpes simplex infection and 11% anal warts...Urethral gonorrhoea and/or chlamydia infections were diagnosed in 39% of heterosexuals compared to only 10% of homosexuals and bisexuals. Twelve percent of the homosexuals had untreated early syphilis, whereas

syphilis was exceptional among heterosexuals. The total burden of infections expressed as the actual number of infections was largest among homosexuals, 40.4%, 22.4%, and 5.3% having one, two, and three infections respectively."

In addition to infection, trauma and tumors are the primary problems related to the anorectum in homosexual men. "Consensual penile-anal intercourse can be performed safely provided there is adequate lubrication. Few anorectal problems and no evidence of anal-sphincter dysfunction are found in heterosexual women who have anal-receptive intercourse. However, forceful anal penetration without lubrication against a resistant sphincter will result in abrasive trauma, causing fissures, contusions, thrombosed hemorrhoids, lacerations with bleeding, pain, and psychic trauma" (Bush, 1986). The most severe type of anorectal trauma follows fist fornication which during the 1970s was practiced by approximately 5% of the male homosexual population (Geist, 1988). It should be noted that this activity is occasionally practiced by heterosexual and lesbian couples. This technique of anal eroticism involves having the partner insert their hand and forearm into the rectum for erotic stimulation. "The insertion of such a large object as a hand or fist creates the potential for rupture of the rectum or severe damage to the anus or rectal walls" (Agnew, 1986). "Participants frequently use drugs to produce inhibition or relaxation, thereby clouding appropriate responses to painful stimuli. Injuries

sustained in this sexual activity generally tend to be severer and account for most sphincter injuries, as well as a disproportionate number of the lacerations, perforations, and deaths seen in connection with anal eroticism" (Geist, 1988).

In addition to infections and trauma, tumors are a definite risk for homosexual men. "Homosexual behavior in men is a risk factor for anal cancer. Squamous-cell anal cancer is also associated with a history of genital warts, an association suggesting that papillomavirus infection is a cause of anal cancer" (Daling, 1987). Anal warts are commonly found among individuals who practice anal intercourse and only rarely found among heterosexuals practicing vaginal intercourse. "In one series of 260 homosexual men seen by proctologists, 134 (51.5 percent) had anal warts. They may occur anywhere in the anal-genital area but are particularly common in the anus of homosexual men" (Quinn, 1984). This infection appears to be correlated with the higher incidence of anal cancer in homosexual men.

At our Boston meeting, we spent some time discussing the complementarity of the human sexes. Although one could gather from the discussion of the consultants in scripture, theology, and Christian ethics that there may be some lack of assurance that the human sexes complement each other, I believe that it is possible to argue succinctly from an anatomical (structure) and physiological (function) point of view that the human sexes are indeed complementary.

It is absolutely clear that anatomically and physiologically the alimentary and reproductive systems in humans are separate organ systems; i.e., the human does not have a cloaca. Likewise it is clear that even primitive cultures understand the nature of waste elimination, sexual intercourse, and the birth of children. Indeed our own children appear to "intuitively" understand these facts. I think we should note that these simple "scientific" facts are the same in any culture - patriarchal or matriarchal, modern or primitive, Jewish or gentile, etc. The anatomic and physiologic facts of alimentation and reproduction simply do not change based on any cultural setting. In fact, the logical complementarity of the human sexes has been so recognized in our culture that it has entered our vocabulary in the form of naming various pipe fittings either the male fitting or the female fitting depending upon which one interlocks within the other. When the complementarity of the sexes is breached, injuries and diseases may occur as noted above.

Therefore, based on the simplest known anatomy and physiology, when dealing with the complementarity of the human sexes, one can simply say, Res ipsa loquitur - the thing speaks for itself!

January 14, 1991

BIBLIOGRAPHY

- Agnew, Jeremy, Hazards Associated with Anal Erotic Activity. Archives of Sexual Behavior, 15:307-314, 1986.
- Barone, James E. and Nealon, Thomas F., Jr., Management of Foreign Bodies and Trauma of the Rectum. Surgery, Gynecology and Obstetrics, 156:453-457, 1983.
- Busch, David B. and Starling, James R., Rectal Foreign Bodies: Case Reports and a Comprehensive Review of the World's Literature. Surgery, 100:512-519, 1986.
- Bush, Robert A., Jr., and Owen, William F., Jr., Trauma and Other Noninfectious Problems in Homosexual Men. Medical Clinics of North America, 70:549-566, 1986.
- Christopherson, Jette, et al, Sexually Transmitted Diseases in Hetero-, Homo- and Bisexual Males in Copenhagen. Danish Medical Bulletin, 35:285-8, 1988.
- Daling, Janet R., et al, Sexual Practices, Sexually Transmitted Diseases, and the Incidence of Anal Cancer. New England Journal of Medicine, 317:973-977, 1987.
- Eckert, William G., And Katchis, Steven, Anorectal Trauma. American Journal of Forensic Medicine and Pathology, 10:3-9, 1989.
- Elam, A.L., and Ray, V.G., Sexually Related Trauma: A Review. Annals of Emergency Medicine, 15:576-584, 1986.
- Geist, Richard F., Sexually Related Trauma. Emergency Medicine Clinics of North America, 6:439-466, 1988.
- Patton, Harry D., et al, Textbook of Physiology, 21st ed., Philadelphia, W. B. Saunders Co., 1989, pp. 1263-1460.
- Quinn, Thomas C., and Holmes, King K., Proctitis Proctocolitis, and Enteritis in Homosexual Men. IN: Sexually Transmitted Diseases, ed. by Holmes, King K., et al, New York, McGraw-Hill Book Company, 1984, pp. 672-691.
- Torre, Carlo, Delayed Death from "Fisting." American Journal of Forensic Medicine and Pathology, 8:91, 1987.
- Williams, Peter L., et al, Gray's Anatomy, 37th ed., Edinburgh, Churchill Livingstone, 1989, pp. 1369-77, 1424-47.

Zinner, Stephen H., Sexually Transmitted Diseases in
Homosexuals. Chapter 8, IN: STDs: Sexually Transmitted
Diseases, New York, Summit Books, 1985, pp. 102-114.