

Self-reported characteristics of women and men with intimate body piercings

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Accepted for publication 23 June 2004

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CALIENDO C., ARMSTRONG M.L. & ROBERTS A.E. (2005) *Journal of Advanced Nursing* 49(5), 474–484

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Aim. The purpose of this paper is to report the findings of a study exploring factors associated with female and male intimate body piercing, with particular emphasis on health issues.

Background. Nipple and genital piercings (intimate piercings) have become common types of body art. Scant medical and nursing literature is available, leading to little understanding of these body modifications by health care providers.

Method. A convenience sample of intimately pierced individuals (63 women and 83 men) from 29 states in the United States of America was surveyed via an author-developed questionnaire. Questions focused on demographic characteristics, decision factors and health problems related to intimate piercings. Self-reported characteristics were compared between female and male participants, and participants were compared demographically to United States general population.

Results. Participants reported wearing nipple piercings (43%), genital piercings (25%) and both types (32%). Respondents were significantly younger, less ethnically diverse, better educated, less likely to be married, more often homosexual or bisexual and they initiated sexual activity at a younger age than the US population. Deliberate, individual decisions for procurement of the intimate piercings were made. Average purchase consideration was at age 25 (nipple) and 27 (genital); average age to obtain the piercing was 27 (nipple) and 28 (genital) years. Purposes for obtaining the piercings included uniqueness, self-expression and sexual expression. Most participants still liked their piercing (73–90%). Health concerns related to intimate piercings were described by both those with nipple piercings (66%) and with genital piercings (52%) and included site sensitivity, skin irritation, infection and change in urinary flow (male genital). Few STDs (3%) were reported and no HIV or hepatitis. Usually non-medical advice was sought for problems – often from the body piercer.

Conclusions. Understanding client rationale is not a necessary prerequisite for providing quality patient care; however, awareness of purposes and

decision-making in intimate piercing can help nurses to be sensitive to client needs and plan appropriate health education.

Keywords: body art, body piercing, genital piercing, nipple piercing, nursing

Introduction

Body piercings are created by developing tracts under the skin with large bore needles to insert decorative ornaments such as jewellery (Greif *et al.* 1999). These invasive procedures have flourished in the United States of America for the past two decades, with increasing prevalence and steady persistence (Tweeten & Rickman 1998, Ferguson 1999, Armstrong *et al.* 2002). The incidence of body piercing among American college students may be as high as 33% (Mayers *et al.* 2002).

Usual locations for visible body piercings include the face, nose, and ears; the prevalent semi-visible sites are the tongue and navel. Intimate sites include single or multiple piercings of the nipples, clitoral hood, inner and/or outer labia, perineum, penis, foreskin and scrotum. Piercing the nipple is fairly common, but greater variety exists for genital piercing (Myers 1992).

Little is known about intimate body piercing or its relevance to human behaviour (Meyer 2000). When clients with nipple and/or genital piercings seek health care, they may receive that care from professional nurses who lack information or understanding about the practice (Armstrong *et al.* 1995, Caliendo 1999, Meyer 2000). In an effort to increase the nursing knowledge base surrounding individuals with intimate body piercing, a descriptive, correlational study was undertaken. The purpose of the study was to investigate and explore factors associated with female and male intimate body piercing, with a particular emphasis on health issues.

Background

The practice of inserting needles, rings and other objects into the flesh (i.e. body piercing) has been documented in most cultures for thousands of years (Myers 1992, Ferguson 1999, Falcon 2000, Lehmann *et al.* 2000, Meyer 2000). Historically, most piercing was confined to the ears, mouth and nose. Victorian-era journals for society girls, however, discussed using jewellery to enhance the shape and size of the nipples (Ferguson 1999). Piercings of the labia originated as a way of ensuring chastity (Myers 1992). In past centuries, cultural groups near the Indian Ocean used bone pieces for genital piercings (Tweeten & Rickman 1998). Today, prevalence rates for intimate body piercing remain elusive. In recent studies of college students in the United States of America

($n = 1670$) who self-reported body art, 12–14% claimed to wear nipple and/or genital piercings (Greif *et al.* 1999, Mayers *et al.* 2002).

The estimated infection/complication rate for intimate piercing is between 10% and 15% (Falcon 2000). Other than infections and trauma (the ring torn out), there are fewer reported complications with nipple piercings than other types of piercings due to the limited body movement in the chest area. Four cases of breast abscesses (one male, three females) have been documented in the United States (Fiumara & Capek 1992, Trupiano *et al.* 2001, Modest & Fangman 2002) and England (Ferguson 1999). In Germany, a man with a corrected congenital bicuspid aortic valve defect obtained a nipple piercing, developed mastitis, and this infection subsequently led to a bacterial endocarditis (Ochsenfahrt *et al.* 2001).

Origins of the practice and names for genital piercings remain unclear (Ferguson 1999). The most common penile piercing is the 'Prince Albert', which perforates the urinary meatus and corona, often affecting the flow and aim of the urine stream, causing some men to sit for urination (Ferguson 1999). With female genital piercings, the common sites are the clitoral hood and labia; there is no urethra involvement. Numerous health problems have been attributed to genital piercings, including infections, allergic metal reactions and rejection, scarring, bleeding, impotence and sterility, loss of sexual response, tearing, and high risks of STDs (Wilcox 1981, Meyer 2000, Peate 2000, Gokhale *et al.* 2001). Only isolated cases are documented, however, with two instances each of paraphimosis in uncircumcised men with genital piercings (Jones & Flynn 1996, Slawik *et al.* 1999) and urethral rupture following avulsion of a penile ring (Higgins *et al.* 1995, Hall & Summerton 1997), one case each of recurrent condyloma acuminatum (Altman & Manglani 1997), molluscum contagiosum (Fiumara & Eisen 1983), and a hypoechoic lesion (Lehmann *et al.* 2000).

A case history described piercings as a possible mode for HIV transmission (Pugatch *et al.* 1998). It has been suggested that genital piercings can easily become contaminated with periurethral microflora (Khanna & Kumar 2000) and faeces (Higgins *et al.* 1995), or irritated from walking and riding bicycles. For female genital piercings, there have been claims that hormonal changes during the menstrual cycle and pregnancy affect healing time, maintenance, risk of rejection

and infection (Christensen *et al.* 2000). These allegations are anecdotal, however, and no objective evidence related to genital piercings (including during pregnancy or childbirth) has been published.

Current and past literature implies that individuals with tattooing and body piercings are different from the general population; indeed a negative bias related to those with body art is evident in American and European medical literature. Despite lack of specific evidence, risk status for infectious diseases is assigned to people with tattooing and body piercings. A recent brochure on HIV/HCV states that tattooing and body piercing is the third leading cause of hepatitis C transmission, yet lists no evidence for this assertion (Valenti & Ferri 2002). One American health care facility established a policy which required any patient with 'exotic adornments' (Fiumara & Capek 1992, p. 139) to be examined for STDs – no matter what the nature of the presenting complaint (Fiumara & Eisen 1983, Fiumara & Capek 1992).

In 1896 Cesare Lombroso, a physician and anthropologist, published the theory of the 'born criminal', which also suggested a relationship between criminal behaviour and body ornamentation (Lombroso-Ferrero 1972). Meyer (2000) believed this work to be the root of stereotypical attitudes toward people with body art. A variety of negative characteristics have been attributed to people who have any type of piercings, including deviant conduct, poor school performance, enjoying the 'shock value', having criminal records and being products of broken homes and unhappy childhoods (Pugatch *et al.* 1998, Ferguson 1999, Cartwright 2000, Meyer 2000, Stewart 2001). It has been suggested that genital piercings are seen primarily in homosexual men or sadomasochists (Wilcox 1981, Buhrich 1983, Hansen *et al.* 1998). In contrast, Willmott (2001) identified a group of English women with various body piercings who presented at a STD clinic and compared 'demographic, socio-economic, and sexual indicators' (p. 358) with non-pierced women at the facility. No relationship could be found between piercing and socio-economic class, method of contraception, multiple partners, or the presence of genital infection.

Moser *et al.* (1993) collected descriptive information and reasons for nipple piercing ($n = 362$), and showed that nipple piercings were obtained for sexual responsiveness and interest. Less than 1% regretted the piercing, and both males (94%) and females (87%) said they would do it again. These researchers emphasized that the 'sample [was] heavily biased [with] respondents from the sadomasochism (S/M) subculture' (p. 53).

Miller and Edenholt (1999) propose two major reasons for acquiring genital piercings – to assert body ownership and for sexual enhancement. Other reasons noted in the literature

include acquisition of symbolic power, ritual celebrations, adventure and aesthetics (Rowanchilde 1996, Altman & Manglani 1997, Rosenblatt 1997, Miller & Edenholt 1999, Mayers *et al.* 2002); however, these claims are anecdotal.

Caliendo (1999) conducted a nursing phenomenological inquiry that described the lived experiences of eight Pennsylvania women who had nipple and/or genital piercings (mean age 26 years; mean educational level 15 years). Caliendo described the essential structure of female intimate piercing as 'desired transcendence', i.e. a voluntary act done to enhance the self. All women in the sample affirmed the experience of intimate piercing as intensely personal. They claimed that the piercing was done for themselves, 'for their own pleasure'. Most of the women felt a sense of uniqueness through their accomplishment; not only did they succeed in enduring the dramatic action of getting intimately pierced, but in doing so made themselves feel special. While qualitative research is not intended to be generalized, it may be conceptually utilized. To date, Caliendo's study supplies the only scholarly description of intimately pierced women for nurses to employ.

In summary, there has been much attributed but little documented in relation to intimate body piercings. Complication rates have only been estimated and are extrapolated from case studies, the very nature of which is to report 'interesting' and unusual situations. While multiple purposes for wearing intimate piercings have been postulated, the only evidenced-based data on nipple piercings have been provided by Moser *et al.* (1993) and in relation to women by Caliendo (1999). Nothing has been published that compares characteristics of intimately pierced women and men with each other or with non-pierced individuals or that investigates whether women and men obtain intimate piercings for the same reasons. Clearly, large deficits exist in the nursing knowledge base on this subject.

The study

Aim

The aim of the study was to investigate and explore factors, particularly health issues, associated with intimate body piercing. Three research questions were addressed: (a) What are the demographic characteristics of individuals with intimate body piercings and how do they compare by gender with the general population? (b) What factors surround the decision to become intimately pierced? (c) What health problems related to intimate piercings do individuals with intimate body piercings report?

With regard to full disclosure, we acknowledge long histories of working with individuals with tattooing and

body piercings (at least six previous studies and more than 25 years of advanced clinical practice in women's health care). None of us, however, have tattoos or piercings other than pierced ear lobes.

Method

A 260-item questionnaire, developed at a 10th grade reading level, was used to collect information during 2001 from individuals with intimate piercings. Items were based on an ongoing review of literature, the Armstrong Team Piercing Attitude Survey, previous work with body piercing, and field study. The questionnaire was divided into three sections: 33 demographic questions to be completed by all participants; 116 questions for those with genital piercings; and 111 questions for those with nipple piercings. Disparity between the number of questions in the piercing sections related to the specific sites and health issues inherent in those body areas. Participants with both types of piercings were asked to complete all 260 items.

Questions were grouped according to purpose, customer skills, decision-making, influences of friends and family, barriers to further piercings and health problems. These had Likert-type response scales (1–5 range) and multiple-choice responses, with numerous spaces for personal responses. In previous work (Greif *et al.* 1999, Armstrong *et al.* in press (a), (b)), the internal consistency (Cronbach's α) of the purpose scale was 0.90, barriers scale 0.83, and consumer skill scale 0.86 and 0.79.

Participants were told that they could stop at any point during the completion of the questionnaire if they were uncomfortable with a question(s). Certain questions addressed common concerns found in the literature about people with piercings. Respondents were asked not to be offended and to answer the questions honestly so a clear description of people with nipple and/or genital piercings could be obtained. Additionally, they could choose to give their identifying information (name/address/phone) or remain anonymous.

Data collection

Advertisements were placed three times each in two types of US newspapers: a 'mainstream' national publication with a daily circulation of 2.7 million and a free weekly newspaper, commonly considered to be an 'alternative' tabloid that has a circulation of 7.8 million in 41 states. This resulted in convenience and network sampling, used because the respondents were thought to be difficult to find.

The advertisement stated that nurse researchers were seeking personal information about people with intimate

piercings. Advertising policies of the national newspaper prohibited the use of the words 'nipple' and 'genital', and so the term 'intimate' was substituted. Subsequently, in the tabloid newspaper, the word 'intimate' was used for consistency. A toll-free phone number was listed in all the advertisements so interested people could access an automated mailbox containing a recorded message that described the purpose of the study and informed consent information. After listening to the phone message, callers choosing to participate left their names and addresses. A survey and author-addressed, stamped envelope was mailed within a few days to all who requested the information.

From the mainstream newspaper advertisements, little response (37 calls) resulted; 11 people from seven states requested questionnaires. In contrast, a large group (628 calls) responded to the alternative newspaper advertisements. People ($n = 289$) from 33 states volunteered and were sent questionnaires.

While no validation of the respondent's piercing could be established with this sampling technique, questions were written so specifically that it would be extremely difficult and time-consuming to answer if the respondent did not have an intimate piercing. Additionally, over 95% of participants provided their name/address/phone and requested study results; many wrote detailed comments throughout the questionnaire, indicating a high interest in the content.

Ethical considerations

The appropriate institutional review board approved the study.

Data analysis

The statistical package of SPSS, Version 11 was used. Specifically, univariate, bivariate and inferential statistics were applied to analyse the numerical data. An α of 0.05 was set.

Results

Responses ($n = 154$) were received from 29 states. Of those who volunteered to participate, 53% actually returned questionnaires. Eight questionnaires had significant missing data, leaving 146 for analysis (51% adjusted response rate).

Demographic characteristics

The sample was comprised of 57% men ($n = 83$) and 43% women ($n = 63$). Ages ranged from 18 to 71, with an average

age of 31 years. Most participants were single (44%) and white (83%); 42% lived in California, Colorado, Oregon and Texas. Educational level ranged from <12 years (2%) to a doctoral degree (1%), with 45% reporting 'some' college attendance, and an undergraduate or graduate degree (30%). A wide range of occupations were cited; 45% were classified as technical/vocational, 27% reported professional occupations and 19% were students. Forty-three per cent of respondents reported incomes between \$15,000 and \$30,000, while another 38% declared incomes of \$30,000 or higher. Mean age at first sexual intercourse was 15.7 years. While most respondents claimed heterosexual orientation (71%), 14% declared same sex and 14% claimed bisexual activity.

Sample demographic characteristics of gender, age, ethnicity, education, income, marital status, sexual orientation, and age at first sexual intercourse were compared with national data from the General Social Survey (Davis & Smith 2000) and national census data (Table 1). National sexual orientation data were taken from Lauman *et al.* (1994) and Black *et al.* (2000). All variables listed in Table 1, except gender and income, were statistically significantly different when compared with national data.

Specific piercings

Ownership of specific intimate piercings by gender was examined (Table 2). Forty-three per cent of respondents reported only nipple piercings (34 males and 28 females), 25% reported only genital piercings (22 males and 15 females), and 32% cited having both types of piercings (27 males and 20 females). Males outnumbered females for each of the piercing types ($\chi^2 = 146$, d.f. = 5, $P = 0.00$), earned higher salaries ($\chi^2 = 28.5$, d.f. = 15, $P = 0.02$), and reported more close friends who were also pierced ($\chi^2 = 40$, d.f. = 25, $P = 0.03$). Trends existed for female respondents to be younger and to have obtained their piercings at a younger age, and for males to have higher levels of education and increased rates of marriage, but there were no significant differences between the groups in terms of age, education or marital status.

Respondents were asked to draw their intimate piercing(s) on gender-specific anatomical figures supplied on the questionnaire, and 61 men and 48 women did so. Most (59%) had bilateral piercings. Sixteen per cent had one nipple pierced and a few (eight) also had double piercings in one or both nipples. Straight and curved barbells or captive bead rings (tension rings that hold a round metal bead in position),

Table 1 Comparison of total sample ($n = 146$) with national demographic information

Variable	Sample	National (Davis & Smith 2000)	Test value	d.f.	Significance*
Gender	F = 43%, M = 57%	F = 51%, M = 49%	$\chi^2 = 3.5$	1	0.061
Age	X = 31 years	X = 45.56	$t = -14.4$	142	0.000
Ethnicity	White = 83%, Black = 1%, Hispanic = 5%, Other = 11%	White = 67%, Black = 11%, Hispanic = 11%, Other = 11%	$\chi^2 = 43.1$	6	0.000
High school (HS) education	Less than HS = 2%	Less than HS = 16%	$X^2 = 20.9$	1	0.000
Income	< \$15,000 = 18%, \$15,001–\$30,000 = 43%, \$30,001–\$45,000 = 20%, > \$45,000 = 20%	< \$15,000 = 22%, \$15,001–\$30,000 = 28%, \$30,001–\$45,000 = 22%, > \$45,000 = 27%	$\chi^2 = 4.9$	3	0.183
Marital status	Single = 44%, Married = 21%	Single = 25%, Married = 45%	$\chi^2 = 115$	3	0.000
Sexual orientation	Females (homosexual = 10%, heterosexual = 73%, bisexual = 18%); Males (homosexual = 18%, heterosexual = 69%, bisexual = 11%)	Females (homosexual = 1%, heterosexual = 98%, bisexual = 0.5%); Males (homosexual = 3%, heterosexual = 97%, bisexual = 0.6%)	Females ($\chi^2 = 396.2$); Males ($\chi^2 = 238.2$)	2	0.000
Age at first sexual intercourse	X = 15.7 years	X = 16.5 years	$t = -4.3$	135	0.000

*Probability at 0.05 level.

Table 2 Demographic characteristics according to gender and specific intimate piercing site ($n = 146$)

	Males			Females		
	Genital ($n = 22$)	Nipple ($n = 34$)	Both ($n = 27$)	Genital ($n = 15$)	Nipples ($n = 28$)	Both ($n = 20$)
Age (years)						
18–24	8	11	4	10	17	9
25–34	5	12	8	2	5	7
35–44	4	6	5	2	3	2
45+	5	5	9	1	2	1
Ethnicity						
Caucasian	19	26	26	12	23	16
Other	3	7	3	3	5	4
Marital status						
Single	10	16	11	11	13	3
Married	6	9	7	0	6	5
Other	6	10	9	3	10	11
Education						
High school	4	6	4	4	3	1
Bachelor's degree	5	8	8	4	6	6
Master's degree	2	1	3	0	1	0
Salary						
< \$30,000	11	17	14	11	21	11
\$31–45,000	4	8	2	2	5	7
\$46,000+	7	7	11	1	1	1
Sexual orientation						
Males	5	8	2	12	24	10
Females	14	21	22	2	1	3
Both	3	4	2	1	3	7
Age at first sex (years)						
11–13	3	7	3	1	2	5
14–16	7	14	8	6	16	12
17–20	8	10	14	7	10	3

placed in a horizontal position, were the most common jewellery configurations.

Forty-nine men and 34 women drew genital piercings (one woman chose not to draw her piercing). Prince Albert piercings were the common male genital piercing, done solely (45%) or in combination (24%) with other genital variations (one man totalled six genital piercings). Most men wore hoops, or curved and straight barbells, with a few using captive bead jewellery. Among the female respondents with genital piercings, 62% had a clitoral hood or clitoral body piercing (horizontal placement), 12% were pierced on the outer labia and 3% on the inner labia; 24% combined these two major types of female genital piercings. Most women wore captive bead jewellery.

Factors considered when making intimate piercing decisions

Average age at purchase consideration was 25 years for those with nipple piercings and 27 years for genital piercings

($F = 4.5$, $P = 0.01$). Average ages at which actual piercing procurement occurred were 1–2 years later: nipple piercings at 27 years and genital piercings at 28 years ($F = 3.8$, $P = 0.01$).

There was a trend (non-significant) for women to be more cautious decision-makers. While 47% of men with nipple and 48% of men with both types of piercings took anywhere from a few months to over a year to make the decision to get pierced, 60% each of women with genital and combined piercing types took that long. Both genders reported a wide variety of events occurring around the time of procuring their intimate body art, such as funerals, divorces or marriages. Others stated, 'I just wanted more sexual enhancement'.

Consumer skills

The consumer skills scale (Cronbach's α : nipple 0.74; genital 0.69) asked respondents to select from a series of choices related to the importance of details surrounding the actual piercing procedure. There was agreement among all the piercing groups about what were important consumer

factors. The need for a friendly, informative piercing artist and a clean studio rated high. There was a trend for males with both types of piercings wanting to have a thorough knowledge of health problems and risks before they thought about the artist and studio.

Purpose for piercings

In the purpose scale (Cronbach's α 0.86 for nipple and genital scales) respondents chose items concerning social concerns, status, self-identity, uniqueness and sexual issues. There was strong agreement as to what were and were not intended purposes for obtaining an intimate piercing.

Wanting to 'express themselves' was the most commonly cited purpose for obtaining nipple piercings. This was cited more often by males (77%). The second most common purpose (chosen more often by female respondents) (43%), was to 'express themselves sexually'. With regard to genital piercings, males and females agreed on the purposes (Cronbach's α 0.87): 79% felt that it 'helped me express myself sexually', 77% that it 'improved my personal pleasure with sex', and 71% that 'it helped me feel unique'.

Respondents were very clear about what was not their intent in obtaining the piercing. Status and prestige were denied as a motive by 79%; 78% denied trying to improve their social position; and 68% rejected the idea that intimate piercings were obtained to commemorate a festive occasion.

Influence of family and friends

Several questions enquired about the influence of family and friends. Over a third of respondents had family members with body piercings (not necessarily intimate piercings). Sisters proved to be the only significant family members who influenced respondents in obtaining an intimate piercing ($\chi^2 = 11.2$, d.f. = 5, $P = 0.048$). There was strong agreement that famous people (92%), friends (58%) or family members (95%) (other than a sister) did not provide motivation to obtain the intimate piercing.

Over half the respondents (53%) were alone when they obtained their intimate piercing. Among those who did have a support person, people with nipple piercings were the most likely to have a companion ($\chi^2 = 27$, d.f. = 5, $P = 0.01$).

Experiential outcomes since their piercings

Most respondents still liked their piercings, although specific groups rated their responses differently. Those with nipple piercings had the highest satisfaction ratings (97%), followed

by those with genital piercings (range 73–90%) and, lastly, respondents with both types of piercings (65–78%). The majority of respondents (64%) reported that their intimate piercings had not changed them personally.

Only 14% believed they had gone 'too far or were becoming addicted' to body piercing. While 21% cited worries that their piercings could prevent them from achieving a goal or getting a promotion, only 8% reported actually experiencing those problems. Respondents chose 'ongoing infections' and 'negative responses from significant others' as barriers that would stop them from getting another intimate piercing (Cronbach's α 0.88 includes nipple and genital scales). The majority (87%) received positive responses from their sexual partners in relation to their intimate piercing, but a small portion (10%) reported that a partner had refused to have sex with them since their piercing.

Health problems related to intimate piercings

No respondents reported HIV, hepatitis B or hepatitis C infections, but all cited at least a small amount of procedural bleeding. Five (3%) reported acquiring an STD after they had obtained their intimate piercings. Chlamydia, gonorrhoea and herpes infections were reported by those with nipple piercings (two males; one female) and by those with both types of intimate piercings (one male; one female). No STDs were reported by individuals who wore only genital piercings. As with the rest of the questionnaire, STD information was self-report only. Respondents were not asked about routine or baseline testing.

More than one-third of respondents with nipple piercings (34%) and almost half with genital piercings (48%) reported no health-related problems. Those who reported health problems were able to describe more than one; thus the number of problems was greater than the number of respondents who reported them. People with nipple piercings ($n = 109$) described 112 problems (Table 3). These were site sensitivity (37%), followed by 21% with skin irritation (short-term redness, dry skin and tenderness), and 21% with site infections (pus, drainage, pain, redness); there was no gender difference. Forty-nine men cited 74 health problems with their genital piercings as compared with 12 problems from 35 women. Male problems related to urinary flow changes (39%) and site sensitivity (31%). Women with genital piercings had the least number of health problems of the four groups (35 women/11 problems). Respondents were not asked about the length of time they had worn the piercing they were describing in relation to the health problem. It cannot be assumed that all respondents used the same type of 'after care' procedure during the healing phase of their

Table 3 Self-reported health complications with nipple and genital piercings

	Genital piercings		Nipple piercings	
	Males (<i>n</i> = 49)	Females (<i>n</i> = 35)	Males (<i>n</i> = 59)	Females (<i>n</i> = 50)
Site sensitivity	15	4	22	18
Skin irritation	9	2	10	13
Site infection	4	1	12	10
Site rips/tears	4	0	8	5
Site keloid scars	4	1	7	3
Embedded jewellery	0	0	3	1
Sexual problems	2	2		
Condom problems	9	0		
Birth control problems	1			
Oral sex problems	4	0		
Change urinary flow	19			
Urinary tract infection	1	1		
Other, not named	2	1		

piercing, and professional piercers recommend a variety of care practices.

Among respondents who did experience problems, most (54%) discussed treatment with their piercer. Additional informational sources included the Internet and friends; others reported using 'commonsense' to resolve problems (practising meticulous hygiene or wearing loose clothes). Nurses and physicians were cited as resources by only 3%.

Study limitations

While we were aware that self-report is subject to bias, inaccurate recall, and/or inflation, random sampling is impossible in a population that possesses a hidden variable of interest. Thus, questionnaire research, with all its drawbacks, remains the accessible alternative for eliciting information about intimate piercing. The respondents added large amounts of individual data in the areas that were provided and also sporadically throughout the survey, a finding similar to Armstrong's (1991) study with tattooed career women. All but one supplied their names and addresses and gave us permission to contact them to obtain more details or clarify responses.

Although the actual return rate for questionnaires was extraordinarily high for survey research, there was a large difference between the number of phone calls to the toll-free line and the number of people who left identifying information and requested a questionnaire. Confidentiality issues preclude us from following up on those who called but did not elect to participate. Several assumptions about this group can be made. Certain readers may have viewed an advertisement about intimate piercing and the offer of a toll-free telephone

line as 'titillating'. Thus, some disappointed thrill-seekers may have simply listened for a few minutes and then hung up when they heard the informed consent information. The need to leave a name and address may have worried some legitimate potential participants with intimate body art, due to the negative stereotypes discussed in the review of literature.

Study participants were probably those who were satisfied with their intimate piercings. The advertisements solicited individuals who currently owned this type of body art. People who were dissatisfied with a piercing and had already removed it were unlikely to respond. Thus, there may be a sampling bias towards people who have positive attitudes about intimate piercings.

Discussion

When the general demographic characteristics of the sample were compared with the national population, several significant differences were revealed. The sample was older, better educated and more likely to be single than the typical American. The sample had many more Caucasians than the national average and, therefore, was not ethnically diverse. Although not statistically significant, the sample had a higher proportion of males and was largely from the Western part of the United States.

As previously noted in the review of literature, negative stereotypical assumptions about people with intimate piercings are common. While these data point to a sample that is different, it can be argued that certain dissimilarities (being older and better educated) reflect positively on the characteristics of the group. Certainly, the sample does not seem to fit the picture of the low-performing, socially deviant criminal posed in the literature (Lombroso-Ferrero 1972, Pugatch *et al.* 1998, Ferguson 1999, Cartwright 2000, Meyer 2000, Stewart 2001), especially when considered in light of respondents' social backgrounds.

There was a younger mean age of first sexual activity than the American average (15.7 vs. 16.5 years), and some respondents reported routinely participating in S/M practices. Same sex and bisexual orientation were more prevalent than in the national data, an idea also put forth by Hansen *et al.* (1998) and Wilcox (1981). Intimate piercing as a stigmata of non-mainstream sexuality is an intriguing idea; however, further study to explore stigma and possible relationships to intimate piercing is needed (and with a larger sample) before that idea can be validated. Sexual risk-taking behaviours among people with intimate piercings should also be investigated further.

While any cases of STDs are troublesome, contrary to some assumptions (Fiumara & Eisen 1983, Fiumara & Capek

1992, Willmott 2001), only a small group of respondents actually reported these. It is not known whether this small number is due to lack of testing, poor reporting or concealment; further research to validate this finding is needed. Longitudinal studies would contribute information about the incidence and type of infection (if any) over time.

Influences for the intimate body piercings seem to come from internal motivational cues for sexual enhancement, self-expression and uniqueness, rather than from external sources such as famous people, family or friends. Moser *et al.* (1993), Miller and Edenholm (1999) and Caliendo (1999) also found that internal incentives were the impetus for intimate body piercings and that desire for sexual enhancement played an important role.

Obtaining body piercing is often thought to be impulsive (Armstrong *et al.* 1995, Meyer 2000). However, contrary to popular belief, deliberate decision-making by adults about acquisition of body art has been a common finding (Armstrong 1991, Moser *et al.* 1993, Willmott 2001, Armstrong *et al.* 2002). Participants in our study reported effective and reflective decision-making, taking as long as 2 years to think about their intentions before initiating action. In that time, they used competent consumer skills to select artists and studios. Perhaps this deliberateness and lengthy period affirms the importance of making the decision following a thoughtful process over time in order to resolve doubts and come to acceptance of the decision. Recently, a legislated waiting period between the request for a piercing and the procedure has been advocated (Ferguson 1999). Based on this growing body of evidence, such measures may not be necessary for adults who request nipple or genital piercing.

Not many respondents had come to regret their decision, which is a finding shared with other body piercing studies (Moser *et al.* 1993, Caliendo 1999, Armstrong *et al.* 2002, 2004a, 2004b, Mayers *et al.* 2002). In our study, those most likely to regret their intimate piercings were in the group reporting *both* nipple and genital piercings. If further research validates this finding, it could form the basis for specific health teaching for clients who already have one type of intimate piercing.

Intimate piercings have not inhibited experiential outcomes for their possessors; only a small portion of the sample has not achieved their goals or promotions, a finding similar to that for career women with tattoos (Armstrong 1991). The hidden nature of intimate piercings allows wearers to decide with whom to share knowledge of their existence. Research concerning the circumstances under which intimately pierced individuals reveal presence of the hidden body piercings may provide correlates between revelation and goals.

When averaged across those with nipple and genital piercings, a little less than half (41%) did not have any associated health problems. Among the 59% who did, both males and females cited site sensitivity as the most common health concern. Interestingly, while increased sensitivity at the site (i.e. enhanced sexual responsiveness) was what they sought with the piercing, subsequently site sensitivity was creating discomfort. However, discomfort had not made them regret the decision to obtain the piercing.

The infection rate reported in this study was 21%. The majority of these infections were reported by individuals with nipple piercings. Falcon (2000) estimated that infection rates would be 10–15%. Clearly the rate documented in our study is higher than previous estimates. However, this is the first time a large group of intimately pierced individuals have been asked to describe health data specific to their piercings in any formalized manner, and the data were retrospective and self-reported. Self-reported data (especially when involving health statements) must be viewed sceptically: a medical diagnosis was not required to validate the claim of infection in the intimately pierced site. The 21% infection rate claimed should be noted by health care providers but not incorporated into clinical practice decisions until prospective, longitudinal data about infection rates and other complications of intimate piercing have been collected.

No blood-borne diseases of HIV or hepatitis were reported. Women did not relate hormonal changes during menstruation or pregnancy to healing time, maintenance or risks of rejection with their piercings. Likewise, men with genital piercings did not cite urinary or rectal infections or avoidance of walking or riding bicycles. All these findings contradict the common anecdotal information in the literature (Higgins *et al.* 1995, Christensen *et al.* 2000, Khanna & Kumar 2000, Meyer 2000).

Males reported urinary diversion problems following Prince Albert piercings. This is an important finding because the Prince Albert is the most common male genital piercing both in this study and in general. More information is needed about the extent of problems with urine flow. Specific health teaching about the potential for alteration in elimination should be developed for professional piercers and for men intending to obtain a Prince Albert ring. The cooperation of professional piercers will need to be sought in further research attempting to investigate piercing procedures that may eliminate this side-effect.

Perhaps the most important finding in relation to health problems is that when our respondents experienced an alteration in health related to the intimate piercing, they often sought non-medical advice. This finding is similar to other nurses' data (Armstrong *et al.* 1995, Caliendo 1999,

What is already known about this topic

- Body piercing is a common form of body art, and piercing of the nipples and genitals (intimate piercing) has gained popularity.
- Multiple health problems and a troubled lifestyle have been anecdotally linked to intimate piercings in the literature.
- There is little nursing knowledge about intimate piercings or those who choose to obtain them.

What this paper adds

- A demographic description of individuals who have chosen to obtain intimate piercings and a description of their health concerns related to these piercings.
- Respondents continued to be satisfied with their intimate piercings.
- People with intimate piercings do not consider health care professionals to be knowledgeable about these types of piercings.

Greif *et al.* 1999). Various reasons for ignoring health care providers can be suggested. Worry about potential ridicule, lack of confidence in health care professionals' knowledge base, or fear that providers will automatically tell them to 'take it out' could all be the basis of this rejection of traditional health care. Professional nurses could play an important part in reversing such apprehension.

Conclusion

Body piercing is popular, but little is known about those who have intimate piercings. This is the first study on this topic in the nursing literature; it was undertaken to enhance the nursing knowledge base about intimately pierced individuals and health issues surrounding those piercings. Such information is intended to assist nurses in developing better understanding of the practice. Understanding client rationale is not a necessary prerequisite for providing quality patient care (Meyer 2000); however, awareness of purposes and decision-making about intimate piercing can help nurses be sensitive to client needs and plan appropriate health education.

Acknowledgments

This study was funded by Carlow University Office of Sponsored Programs, Iota Mu and Zeta Sigma Chapters, Sigma Theta Tau, International, and the Texas Tech Univer-

sity Health Sciences Center School of Nursing Research and Practice Committee. We would like to acknowledge Janet Bundy D.PH RN, Jerome R. Koch PhD, Donna C. Owen PhD RN AOCN and Clare Hopkins PhD RN for their reviews of drafts of the paper.

Author contributions

Study conception and design/Data collection – MLA, CC; Data analysis – AER; Drafting and critical revision of manuscript – MLA, CC, AER; Statistical expertise – AER; Obtaining funding/Admin – MLA, CC; Supervision – MLA.

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