Attitudes and Practices Regarding Nose Piercing: 
Results of a Questionnaire Survey and Review of the Literature

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Background: Body piercing confined to the ears, mouth, and nose has been a common practice in almost every society around the world as far back as can be traced. As the popularity of piercing increasing, there is a soaring urgency of understanding the subsequent complications.

Objective: A survey was designed to analyze the attitudes and practices of a group of volunteers wearing nose piercing. The questionnaire aimed to establish where and how the individuals had their piercing and what kind of complications they had when they got pierced, if any. Also evaluated are the psychosocial consequences of piercing and the reason behind the body jewelry.

Methods: A 15-question survey was offered on a voluntary and anonymous basis to individuals wearing nose jewels at various public places in Eskisehir and Izmir, Turkey, over a span of 4 months period. Questionnaire data were analyzed using the SPSS 15.0. Independent variables included various health complications, location of the piercing and the instrument by which the piercing is performed.

Results: A total of 74 female volunteers responded to the questionnaire. There were 87% had the procedure performed in an unregulated shop while 65% had it done by non-professional personnel. In 85%, the procedure was executed with a sterile injection/needle or a piercing gun, assuming both were sterilized instruments. Nearly 70% noted at least one symptom of local infection. A 30% observed bleeding. No correlation was found between various complications and the location of the piercing or the instrument by which the piercing is performed (p<0.05). Over 90% were clearly happy with their piercing. Adornment is the number one reason (in 38%) of having nose piercing.

Conclusion: Results showed that body piercing, which was common among adolescents, may pose a significant risk to one’s health. Studies with larger sample size and among different populations with various cultural backgrounds are needed to delineate the rate of health complications we have observed. Exploration of psychological and sociological consequences of body piercing through long-term follow-up would be desired. (Dermatol Sinica 27: 210-217, 2009)

Key words: Nose piercing
INTRODUCTION

Body piercing confined to the ears, mouth, and nose has been a common practice in almost every society around the world as far back as can be traced.1 Archaeologists and historians have noted that body piercings have been performed all around the world for over 5,000 years.2 However, these practices have experienced an enormous popularity over the last 30 years, especially in Western societies. Body piercing and other body modifications have increased through all social classes and age groups with the major concentration among adolescents and young adults. Although a demographics survey reports 2% of the American public with body piercings, findings from college populations with piercings is 33%.3-5 As the popularity of piercing is increasing, there is a soaring urgency of understanding the subsequent complications. These complications primarily related to the materials and/or instruments used, the body region(s) pierced, practitioners’ experience, personal hygiene, and after-care.

In this study, we designed a surveillance questionnaire to recognize young volunteers’ attitudes toward nose piercing, their piercing practices and complications they might experience.

MATERIAL AND METHOD

Study Design

A questionnaire, drawn up and refined specifically for this study, was offered on a voluntary and anonymous basis. The responders were individuals wearing nose piercing at various public places, mostly university halls and organizational meetings between October 2008 and January 2009 in the cities of Eskisehir and Izmir. They responded to the questionnaire in a voluntary basis.

The responders were from two cities, Eskisehir and Izmir. Eskisehir is a province in northwestern Turkey with a population of 741,739. Izmir is in west Turkey by the Aegean Sea and the third most populous city with a population of 2,649,582. The survey instrument was designed to be brief, non-intrusive, and easy to complete in order to ensure a high response rate. The initial part of the questionnaire documented age/gender. Responders’ names were not recorded. The questionnaire consisted of six multiple-choice questions, eight yes-no questions and one open-ended question (Table 1).

Statistical analysis

Questionnaire data were analyzed using the SPSS 15.0 (Statistical Package for Social Sciences) for Windows. Demographic parameters were summarized with descriptive statistics and frequency tables. Various complications, location of the piercing and the instrument by which the piercing is performed were categorized as independent variables. Chi-square statistics and eta coefficients were generated for each variable, to test the statistical significance of the cross-tabulation, and its usefulness in further analysis. P values less than or equal to 0.05 were considered as statistically significant.

RESULTS

There were 74 female volunteers, aged between 18 and 30 years (mean 21.90 ± 2.73) responded to the questionnaire and completed it properly.

* 92% of the responders had their piercing on the right side.
* Nose piercing was done 1 to 120 months before the survey with a mean of 23.6 ±19.0 months.
* Only 13% had the procedure performed in a regulated shop - in a pharmacy, doctor’s surgical office or in tattoo studio. The rest had it done in a bijouterie shop (84%) or at home (4%) (Fig. 1).
* Only 35% had the procedure performed
Table. 1 The Questionnaire

This questionnaire is designed to gather information about nose piercing and to assess the medical risks of these procedures. We ask you to please complete the following questions by marking the appropriate response. All completed forms are anonymous and will be maintained in a confidential manner by the research group. Your participation in this study is voluntary and indicates your understanding of its purpose.

Circle the appropriate answer and circle “Y” for Yes, “N” for No.

Age to nearest year: ______
Sex: male______ female______

1. Side of the nose piercing
a. Right  b. Left

2. Placement of the piercing on the nose

3. How long have you had your nose piercing?
a. 0-12 months  b. 13-24 months  c. 25-36 months  d. 37-48 months  e. Longer than 48 months

4. Where did you have your nose pierced?

5. Who pierced your nose?
a. Myself  b. Piercing technician  c. Salesman of the bijouterie shop  d. Pharmacy assistant

6. What was used for piercing?
a. Ear ring  b. Piercing itself  c. Sterile injection needle  d. Piercing gun with a sterile needle

If your answer is “Yes”, please state the degree of your complaint for the following three questions...

7. Did you have annoying bleeding when you had your piercing?
Yes (  Mild  Moderate  Severe  )  No

8. Did you have pain after you had your piercing?
Yes (  Mild  Moderate  Severe  )  No

9. Did you have redness and tenderness after you had your piercing?
Yes (  Mild  Moderate  Severe  )  No

10. Did you have swelling after you had your piercing?
Yes (  Mild  Moderate  Severe  )  No

11. Are you happy with your piercing?  Yes  No

12. If you hadn’t had piercing done before, would you have had it done?  Yes  No

13. Do you have any other piercing on your face?  Yes  No

14. Do you have any other piercing on your body?  Yes  No

15. What was the reason for you to have a nose piercing? ……………………………………………………………

by a professional- a medical personnel, piercing technician or a pharmacy assistant while the rest had it done by a salesman (61%) or by responders herself (4%) (Fig. 2).

* 85% had the procedure done with a sterile injection needle or a piercing gun, assuming both were sterilized instruments.

* 70% had experienced at least one sign or symptom of local infection such as pain (51%), redness and tenderness (64%) and swelling (38%).

* 30% noted annoying bleeding while piercing.
No correlation was found between complications and the location of the piercing or the instrument by which the piercing is performed (p<0.05).

Among people answered the questionnaire, 93% declared their absolute happiness with their piercing. All stated that they would do it if they had not done it. Among these individuals, 11% had an additional piercing on their face and 34% had another piercing on their body. When reasons for having nose piercing were asked, adornment took first place with 38%. Expression of freedom came as second with 26%. To be and feel different appeared as third in 24%. Some did it as a protest in view of their parents against it (12%).

DISCUSSION

To the best of our knowledge, this is the first surveillance look into the attitudes, practices and complications of nose piercing. However, our study subjects are small in number and restricted to a limited geographic/cultural/religious population. The data should be interpreted appropriately and not extrapolated to other populace.

However, we would like to deliberate several points here based on our findings:

First point is the great potential for infection. Our study strongly suggested a risk for infection. A great majority experienced signs and symptoms of local infection like pain, tenderness, redness, swelling, etc. The degree to which a person shows some or all of these symptoms depends greatly on how severe the infection is and how much resistance to infection a person has. However, due to the nature of this study, i.e., a surveillance dealing with past events, we could not confirm these symptoms/signs were indeed the manifestation of infection. Piercing was mostly performed in unregulated areas: bijouterie shops, beauty salons, department stores, jewelry stores, and even at homes. Rarely physicians’ offices, pharmacies or tattoo studio were the place where the pro-
procedure was done, as shown in our study. Further, only a third of the procedure was done by a professional - a medical personnel, piercing technician or a pharmacy assistant. There are no official agencies that grant certification for clinics or professionals. It is up to the piercer to practice aseptic techniques and sterilize equipment correctly. Piercing is an invasive procedure that predisposes the client to local infections and blood-borne diseases. Even though a good majority of responders claimed that the procedure was performed with a sterile injection needle or a piercing gun, they would not know for sure it was fully sterilized. A piercing gun is very difficult and usually expensive to sterilize it properly. Therefore, local infection rate could be as high as 70% as indicated by the present study. Local infection was the most common cause of complications and reported in 10-78% of piercings in earlier studies.6,7 Specific skin pathogens such as Staphylococcus aureus could involve surrounding tissue and lead to more serious carbuncles, impetigo, cellulitis or even abscesses. Furthermore, nose and ear piercings were prone to infections with Pseudomonas aeruginosa, resulting in a necrotic chondritis that might require surgical intervention. In extreme cases, infection could become systemic, especially if local infection was not properly treated or persons were immunocompromised. Cysts, keloids and hypertrophic scars were also reported as local complications.8 Bacterial infection was documented as the most common adverse problem.9 Transmission of hepatitis B, C, D, and G and eventual fatal fulminant hepatitis via piercing have been reported.10-13 There was no report of HIV case via piercing, but the potential definitely existed. The concern about person-to-person transmission of viral infections has led the Food and Drug Administration to restrict blood donation for 1 year after tattooing or piercing. Transmission of tetanus, leprosy, and tuberculosis has also been reported through piercing.14-16 Sahn et al. in 1974 documented a case of tuberculosis with drug-resistant tubercle bacilli which was inoculated through nasal piercing.16 Kaur et al. described a case of lupus vulgaris as a consequence of nose piercing.17 None of our responders mentioned symptoms which could have suggested the presence of blood-transmitted infection.
The symptoms and signs experienced by our responders could also be those of allergic reaction or irritation. But allergic sensitization due to contact with metal and nickel sulfate has often been reported in the literature. Such risk prompted the establishment of the European Nickel Directive which set up threshold values for nickel content and nickel release of costume jewelry. Besides eczematous eruptions, those metals may also elicit allergic granulomatous reaction verified by a positive patch test. Granulomatous perichondritis of the nasal ala, with an infectious etiology being ruled out, was reported by Folz. A complete surgical resection was the only alternative if other measures failed to solve the reaction.

Another point to emphasize based on our findings is bleeding as a common side-effect. Even hemorrhage would be expected in each piercing, it can be considerable in certain sites. Stirn et al. reported that bleeding after body piercing procedures could occur in 10-30%. Precaution should be taken in that severe hemorrhage could occur in hemophiliac, after taking aspirin or anticoagulants and in compromised persons with bleeding tendency. One third of our responders experienced a temporary and mild bleeding. There is no correlation between bleeding and the location or the instrument of the piercing.

Although most problems associated with piercing are usually minor and self-limiting, some complications are serious and can be fatal. Our study was not designed to identify such rare complications, but piercers, people choosing to be pierced and healthcare providers need to be aware of the possible serious negative outcomes of body piercing. Infective endocarditis resulting from nasal piercing has been described. An antibiotic prophylaxis was recommended for people with congenital or acquired cardiac disease. But abstain from body piercing should be advised for those individuals. Nodular (pseudosarcomatous or proliferating) fascitis in the supralabial region, an atypical cellular neurothekeoma arising subsequently in the area of a nasal alar piercing, and a basal cell carcinoma at the site of a nasal piercing all have been documented in the literature.

The study attempted to evaluate the psychosocial consequences of the individuals. Our responders seem to be happy about their decision of nose piercing. Some even went on to have further body piercing. This is in contrary to the reports of unhappiness, embarrassment, low self-esteem, and disappointment with piercings. Body piercing can be interpreted as a visible, self-produced violation of socially defined beauty standards and body boundaries and, thus, arouses social provocation. Millner surveyed 81 subjects recruited through body art shops and revealed that key motivating factors for obtaining body piercing were individual expression (62%) and art (43%). Less common motivations included the perception that body piercing is sexy and beautiful, i.e., a form of celebration. Armstrong and his colleagues reported motivations for body piercing among college students included uniqueness” and “to be myself”. These findings more or less agreed with ours: our responders’ idea about nose piercing was adornment, expression of freedom, to be and feel different and as a protest against their own parents.

Apart from the topic and the design of this survey study, special implementations for nasal piercings in the operating room and in radiologic diagnostic studies are worth to mention. Nasal piercings have caused problem in the operating room and during radiologic diagnostic procedure. Nose piercings/jewelry were advised to be removed before such procedures. They might be forced in as foreign body during anesthetic process and/or intraoperative airway management. Kuczkowski et al. presented a parturient case underwent emergency ce-
sarean section who then required fiberoptic endoscopy and radiologic imaging studies to rule out aerodigestive tract aspiration of the intranasal backing of her nasal jewelry. Another incident was reported lately by Dhir & Dhir. The nasal jewelry was lost during surgery and entangled in the nasogastric tube. It was located at the time of the tube’s removal. Patients who require radiological examinations might be advised to have their body jewelry removed because it might lead to misinterpretation.

The present study has several limitations. The primary limitation is that the sample population is small and this restriction impairs the strength of the statistical analysis. The second limitation is that the sample size is comprised all female and all from a Muslim country. The characteristics of this population cannot be extrapolated to other populations but gives an idea about the big picture.

CONCLUSION

The results of our study are just small steps toward a better understanding of the impact of nasal piercing. Education targeted to populations inclined to body piercing is advisable. Health professionals need to appreciate the potential complications of body piercing, the proper way of piercing and appropriate adversity management. The popularity of piercing warrants a comprehensive systematic documentation of health and psychosocial risks. Further studies would preferably have a larger sample size, can do long-term follow-up and have a population comprising multicultural background.

REFERENCES