Cultural Attitudes and Beliefs of Jordanian and Philippine Military Personnel's Served in Liberia towards Tattoos

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ABSTRACT

Objective: To investigate cultural attitudes towards tattoos among a group of Jordanian and Philippine military personnel's serving in Liberia.

Methods: Two military contingents from the United Nations military Mission in Liberia, the 1st from the Jordanian military forces and the other from the Philippine military forces, were surveyed by an anonymous self-administrated questionnaire on their perception of health risks related to body art "tattoo" and other explanatory variables in the period from the 1st of November/2005 till the 31st of December/2005. Demographic information gathered from respondents included: age, gender. There were 113 Jordanian subjects and 160 Philippine subjects included in this study; response rate was 88.5% (n=100) for the Jordanian military personnel and 74.4% (n=119) for the Philippine military personnel. The Z-test Method was used to analyze data collected by the questionnaire. Statistically significant results were those with a P value <0.05.

Results: Among the two military contingents, Philippine military personnel were consistently less knowledgeable of infectious diseases (Acquired Immune Deficiency Syndrome and/or Hepatitis) related to tattooing instruments. Philippine military personnel have more friends and/or family members who had a tattoo, and more believed that tattoos are equally acceptable and suitable both for men and women. The size and the extent of a tattoo on the acceptability of a tattoo were higher among the Philippine military personnel, and they thought that tattooing is more acceptable in the military environment. More Jordanian military personnel thought and/or tried to have a tattoo on their bodies, although they believed that tattoos are forbidden in the Holy Books, and that it is an indication of some sort of disturbance in the personality. Tattooing was more acceptable for the Jordanian military personnel when it indicated an underlying religious symbol compared to Philippine military personnel.

Conclusion: The differences in the subject's attitudes may reflect the impact of variable combinations of important factors such as religion, cultural background, society and even the media-effect on each person's way of thinking and thus his attitude towards tattoos. A health education program must be organized to increase the general awareness regarding the health risks associated with having a tattoo.

Key words: Cultural Attitudes, Jordanian, Tattoos, Philippine Military

Introduction

Tattoo is the permanent insertion of exogenous pigments into the dermis using a sharp instrument. Humans have done tattooing for cosmetic and ritual purposes since at least the Neolithic era.⁽¹⁾

Tattooing is older than written history; tattoo marks have been found on Egyptian mummies dating from

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about 2000 B.C. Tattooing has been practiced all over the world, but the highest rates were reported in the islands of the South Pacific and in Japan.⁽²⁾

Today, tattoos may be viewed as means by which individuals express their life patterns and personalities. It can be said that tattoos express inner conflicts and satisfy inner needs of the tattooed.

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Tattooing can be evaluated as a social phenomenon. Tattooing also signifies deviation from the norms in certain cultures and it may be considered akin to a spontaneous projective defence to reduce inner tension.⁽³⁾ Tattoos restate a primitive attitude as their magical significance can be viewed representing symbolic aspects of the people.⁽⁴⁾ Several studies indicate a relationship between tattooing and emotional dysfunction. In particular, multiple tattoos may be suggestive of personality disorder.^(3,5-7)

Traditionally, Confucian doctrine claims that bodies are given to people by their parents and that intentionally hurting bodies is contrary to the Confucian concept of filial piety. Due to historical and sociocultural reasons, tattoos are often associated with criminal activities (e.g., *yakuza* or Japanese mafia's custom) and rebellion against society (e.g., going against the concept of filial piety). Although tattooed people tend to be stigmatized and frequently conceal their tattoos, more tattooists openly present themselves as members of a tattoo group.⁽⁸⁾

Accidental tattooing results from unintentional deposition of exogenous pigmented substances into the skin. According to Orwell, coal miners could develop characteristic tattoos owing to coal dust getting into wounds.⁽⁹⁾ This can also occur with substances like gunpowder.

Professional inks may be made from iron oxides (rust), metal salts, and plastics.⁽¹⁰⁾ Homemade or traditional tattoo inks may be made from pen ink, soot, dirt, and blood.^(11,12)

Heavy metals used for colors include mercury (red); lead (yellow, green, white); cadmium (red, orange, yellow); nickel (black); zinc (yellow, white); chromium (green); cobalt (blue); aluminium (green, violet); titanium (white); copper (blue, green); iron (brown, red, black); and barium (white). Metal oxides used include ferrocyanide and ferricyanide (yellow, red, green, blue). Organic chemicals used include azo-chemicals (orange, brown, yellow, green, violet), naptha-derived chemicals (red) and carbon (soot or ash) is used for black. Other pigments used include antimony, arsenic, beryllium, calcium, lithium, selenium, and sulphur.^(12,13)

Tattoos have experienced resurgence in popularity in many parts of the world, particularly in North and South America, Japan, and Europe. The growth in tattoo culture has seen an influx of new artists into the industry, many of whom have technical and fine arts training. Coupled with advancements in tattoo pigments and the ongoing refinement of the equipment used for tattooing, this has led to an improvement in the quality of tattoos.⁽¹⁴⁾

Many studies have been performed on tattooed population and society's view of tattoos. In June 2006 the Journal of the American Academy of Dermatology published the results of a telephone survey which took place in 2004. It was found that 36% of Americans in the age group between 18–29 years, 24% of those 30-40 years and 15% of those 41-51 years had a tattoo.⁽¹⁵⁾ In September 2006, the Pew Research Center conducted a telephone survey which found that 36% of Americans ages group 18-25 years, 40% of those 26-40 years and 10% of those 41-64 years had a tattoo.⁽¹⁶⁾ In January 2008, a survey conducted online by Harris Interactive estimated that 14% of all adults in the United States have a tattoo, just slightly down from 2003, when 16% had a tattoo. Among various age groups, 9% of those ages between 18-24, 32% of those 25-29 years, 25% of those 30-39 years and 12% of those 40-49 have tattoos, as do 8% of those 50-64. Men are just slightly more likely to have a tattoo than women (15% versus 13% respectively).⁽¹⁷⁾

A recent study examined the attitudes of 287 participants toward tattooing using ratings of "avatars" or virtual computer human characters.⁽¹⁸⁾ Researchers found that those avatars with tattoos and other body modifications were rated as more likely to be thrill and adventure seekers, to have a higher number of previous sexual partners, and to be less inhibited than non-tattooed avatars, and that this was more so for male avatars with body modifications. It seems that fictitious, virtual persons are also stigmatized when tattooed. Interestingly, those who are tattooed see themselves as unique; in the domain of having a distinctive appearance.⁽¹⁹⁾

There are both physical and psychosocial risks documented with tattoos. The most common physical problems are localized skin infections and allergic responses to pigments which contain nonstandardized ingredients.^(20,21) Persons who are prone to keloid scarring should be aware that tattoos can trigger the formation of cosmetically blemishing keloids. Ink lines may also spread or change color over the years, a fact of special concern for those interested in so-called "permanent cosmetics" (tattooed lip color, eyebrows, eyeliner, and the like).

Additionally, the potential for blood borne diseases exists. A small to moderate amount of serosanguinous fluid is released during each tattooing procedure so hepatitis B and C could be transmitted either to or by the tattoo artist or the client.⁽²²⁾ Yet, while there are not many reported cases of hepatitis in the medical literature, Armstrong and Kelley (2001) believe the problem seems to be a lack of reporting rather than lack of cases.⁽²³⁾ One college student self-reported a case of hepatitis from tattooing in the Greif *et al.* study (1999) and Haley and Fischer (2001) reported "a sample prevalence rate of a 6.9% seropositive response for HCV" from a 1991-1992 patient population of 629 tattooed clients being evaluated for spinal surgery. The HCV population-standardized prevalence is 2.8%.^(24,25)

Today the practice of tattooing can be made safer through the use of:

- Non-reactive pigments;
- Sterile, disposable needles;
- Sterile work conditions.

Psychosocial risks such as embarrassment (61%) and low self-esteem (26%) have also been documented causing people to hide their markings with adhesive bandages, make-up, and jewellery, or request for tattoo removal. Additionally, clothing (47%) has been used to hide tattoos, with some people doing so for as long as 25 years.⁽²⁶⁾ Those who can afford them often request laser removal with repeated dermatology office visits.

Social stigma (how people see tattooed persons) is different from one country to another depending on many factors such as cultural and religious background.

This study was conducted to investigate cultural attitudes towards tattoos among a group of Jordanian and Philippine military personnel's serving in Liberia.

Methods

There were 113 military Jordanian subjects aged 23-46 years, and 160 military Philippine subjects aged 26-48 years included in this study; response rate was 88.5% (n=100) for the Jordanian military personnel and 74.4% (n=119) for the Philippine military personnel.

The study was conducted on troops serving in the United Nations military Mission in Liberia, West Africa in the period between the 1st of November till the 31st of December, 2005. All subjects included in the study were males. An 18-item self-administrated questionnaire developed for the purpose of the study was distributed in two languages (Arabic and English) to suit the subjects demands. It covered a wide range of possible attitudes and beliefs towards tattoos.

The questionnaire was distributed to the Jordanian contingent and the Philippine contingent after being approved by the officer commanders of both contingents in Liberia. All the candidates were informed that they should answer the questionnaire without discussing their answers with colleagues. Also, all participants were informed that they had the right to refuse participation in the study.

First, 113 questionnaires were distributed to the Jordanian military personnel in one occasion. Ninetyeight percent of the Jordanian personnel were 160 questionnaires Muslims. Second, were distributed to the Philippine military personnel. All the personnel in the Philippine contingent were Christians/Catholics and English was their second language. The same instructions were given to the Philippine Military personnel as to those which were given to the Jordanian Military personnel. Demographic information gathered from subjects included age, gender. Names were omitted and interviews were excluded to insure privacy and to enhance responses.

The total population of military personnel served in the Jordanian contingent was 113 and all were males. The total population of military personnel served in the Philippine contingent was 160 (154 males and 6 females). No one was excluded from the study apart from those who did not want to participate and the Philippine female personnel.

The Z-test Method was used to analyze data questionnaire. Statistically collected by the significant results were those with a P-value <0.05. A Z-score (or standard score) is used to compare means from different normally distributed sets of data. The actual score indicates how many standard deviations an observation is above or below the mean. The Zscore is useful in research utilizing statistical analysis because it allows for the comparison of observations from different normal distributions. In effect, when items from different data sets are transformed into Zscores, then they all may be compared.

Results

The study results showed statistically significant difference between the Jordanian Military Personnel (JMP) and Philippine Military Personnel (PMP) attitudes and beliefs regarding tattoos (Table I). The PMP (26.89%) were less knowledgeable about infectious diseases (AIDS and/or Hepatitis) related to tattooing instruments compared to JMP (45%) (P=0.002). PMP had more friends and/or a family member who had a tattoo (72.26%) compared to JMP (47%) (P=0.000). More PMP believed that tattoos are equally acceptable and suitable for both men and women (40.33%) compared JMP (11%) (P=0.000). A statistically significant difference was found regarding whether tattoos are more acceptable in men: 50% of JMP answered with a yes compared to

Table I: Comparison between Jordanian and Philippine military personnel views

Questions	Answer								
-	Yes				No			I do not know	
	JMP no.	PMP no.	P-value	JMP no.	PMP no.	P-value	JMP no.	PMP no.	P-value
	(%)	(%)		(%)	(%)		(%)	(%)	
1	47 (47)	86 (72.26)	0.00007	35 (35)	30 (25.21)	0.05	18 (18)	3 (2.52)	0.00001
2	74 (74)	35 (29.41)	0.00001	18 (18)	81 (68.06)	0.00001	8 (8)	3 (2.52)	0.03
3	55 (55)	47 (39.49)	0.01	29 (29)	45 (37.81)	0.1	16 (16)	27 (22.68)	0.1
4	30 (30)	31(26.05)	0.2	66 (66)	73 (61.34)	0.1	4 (4)	15(12.6)	0.01
5	11 (11)	18 (15.12)	0.1	85 (85)	78 (65.54)	0.0003	4 (4)	23 (19.32)	0.0002
6	28 (28)	19 (15.96)	0.01	68 (68)	74 (62.18)	0.1	4 (4)	26 (21.84)	0.00007
7	45 (45)	22 (18.84)	0.00001	46 (46)	82 (68.90)	0.00007	9 (9)	15 (12.60)	0.2
8	15 (15)	16 (13.44)	0.3	84 (84)	95 (79.83)	0.2	1(1)	8 (6.72)	0.01
9	68 (68)	25 (21.00)	0.00001	7 (7)	19 (15.96)	0.02	25 (25)	75 (63.02)	0.00001
10	45 (45)	32 (26.89)	0.002	31 (31)	70 (58.82)	0.00001	24 (24)	17 (14.28)	0.03
11	50 (50)	34 (28.57)	0.0006	29 (29)	49 (41.17)	0.02	21 (21)	36 (30.25)	0.05
12	67(67)	81 (86.6)	0.4	14 (14)	8 (6.72)	0.03	19 (19)	30 (25.21)	0.1
13	11 (11)	48 (40.33)	0.00001	70 (70)	41 (34.45)	0.00001	19 (19)	30 (25.21)	0.1
14	36(36)	13 (10.92)	0.00001	47 (47)	65 (54.62)	0.1	17 (17)	41 (34.45)	0.001
15	5 (5)	18 (15.12)	0.006	77 (77)	53 (44.53)	0.00001	18 (18)	48 (40.33)	0.0001
16	76 (76)	29 (24.36)	0.00001	8 (8)	45 (37.81)	0.00001	16 (16)	45 (37.81)	0.0001
17	6 (6)	13 (10.92)	0.09	88 (88)	85 (71.42)	0.001	6 (6)	21 (17.64)	0.004
18	3 (3)	18 (15.12)	0.001	90 (90)	68 (57.14)	0.00001	7 (7)	33 (27.73)	0.00001

only 28.57% of the PMP (P=0.000), but no significant difference was found between their opinions regarding its suitability for females (67% of JMP compared to 86.6% of the PMP; P=0.4).The size and the extent of a tattoo influence on the acceptability of a tattoo was higher among the PMP (15.12%) compared to JMP (3%) (P=0.001). More PMP (15.12%) thought that tattooing is more acceptable in the military environment compared to JMP (5%) (P=0.006). Many JMP stated that tattooing has become more fashionable and popular (55%) compared to PMP 39.49% (P=0.01) however, more JMP (74%) had advised a friend to get rid of a tattoo than the PMP (29.41%) did (P=0.000). More JMP thought and/or tried to have a tattoo on their bodies (28%) compared to PMP (15.96%) (P=0.01). More JMP believed that tattoos are forbidden in the Holy Books (45%) compared to PMP (18.84%) (Pvalue=0.000), and that it is an indication of some sort of disturbance in the personality (68%) compared to PMP (21%) (P=0.000), 36% of JMP believed that tattooing is more acceptable in the Western culture than other cultures compared to PMP 10.92% (P= 0.000). Tattooing was more acceptable to JMP when it was an indication of a religious symbol (76%) compared to PMP (24.36%) (P=0.000). No significant statistical difference was elicited between JMP and PMP beliefs as to whether the presence of a tattoo on the body of a friend had a negative impact on their relationships; nor could it make people more attractive.

Discussion

Data analysis showed that PMP have more friends and/or a family member who has a tattoo compared to the JMP. This may indicate that the prevalence of tattoos in the Philippines is higher than that in Jordan although we have not found any studies about the prevalence of tattoos in Jordan or the Philippines after reviewing the literature.

Jordanian forces in the area of the mission included a third level hospital and most of the personnel included in this study were health care workers. The fact that most of the JMP were health care workers, who have increased awareness of the availability of new modalities for tattoo removal such as laser therapy, may explain why JMP had advised friends to get rid of a tattoo more than the PMP.

Being a health care worker—a doctor, a nurse, a lab technician or a pharmacist—who is aware of the medical and psychological risks associated with having a tattoo, has resulted also in the finding of a statistically significant difference between the JMP and PMP responses to the items concerned with the transmission of infectious diseases, personality and psychological disturbance (items 8,9,10 Appendix 1).

The JMP responses to certain items in the questionnaire (items 3-6 Appendix 1) may reflect the increased acceptance of tattoos in Jordan. It is possible that tattoos nowadays provide a considerable improvement in the perception of the so called self-image "having a tattoo as a symbol of youth", in contrast to the old perception of negative

connotations such as delinquency and deviant behaviour. In addition, with the new advances in laser technology, the trend has changed regarding tattoos from being a permanent disfigurement, to being easily removable.⁽²⁷⁻²⁹⁾

In the Islamic religion permanent tattooing is forbidden, as it is considered being a permanent disfigurement and a sort of harming the self, which is also forbidden. The majority of the Jordanian troops in the mission were Muslims; this may have contributed to the finding that more JMP knew that tattoos are forbidden in Holy Books. However, this contradicts with their answers to the item regarding tattoos as a religious symbol, in which JMP found it more acceptable than PMP.

Among the Jordanian sample tattooing was found more acceptable when it was done to a male than to a female, while the PMP thought that tattoos are equally accepted for both sexes. This can be explained by the cultural differences between the two groups. The Philippines has a more Westernized cultural background which may accept tattooing for females. Jordan has a more conservative Eastern culture where tattooing is viewed as a sign of delinquency in females but may serve as a symbol for strength in males; this may have been affected by the fact that the subjects included in this study were all males. This also explains JMP's opinion that tattoos are more acceptable in Western cultures than in other cultures, this opinion may be influenced by the increased popularity of tattooing and body piercing as showed in western movies especially as a symbol for some military troops and most of the pop stars. On the other hand, the fact that people with tattoos are excluded from recruitment into the Jordanian army, many soldiers believe that tattoos are not appropriate for military personnel as they are a sign of lack of discipline. In addition these soldiers believe that a military person should be healthy and always good looking, so the presence of a tattoo on a soldier's body is not accepted.

Recommendations

Added to that, we hope that this piece of work will stimulate researchers to conduct studies on those who practice tattooing to assess the relationship between tattooing and sociodemographic characteristics, attitudes, perceptions, acceptability of this practice, motivation to practice tattooing and the awareness to possible psychosocial and physical impact or consequences of the practice on them. Furthermore, researchers need to look at the relationship between different personality traits and tattooing using personality tests to screen their personalities and a formal screening for presence of mental disorders.

Conclusion

The differences in the subject's attitudes may reflect the impact of variable combinations of important factors such as religion, cultural background, society and even the media-effect on each person's way of thinking and thus his attitude towards tattoos. A health education program must be organized to increase the general awareness regarding the health risks associated with having a tattoo.

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Appendix 1

- 1. Do you have a friend or a family member who has a tattoo?
- 2. Have you ever tried to advice a friend or a family member to get rid of a tattoo?
- 3. Do you think that tattooing became more popular and fashionable in the last few years?
- 4. Does the presence of a tattoo on the body of a friend or a family member has a negative impact on your relationship with him or her?
- 5. Do you believe that tattoo makes people more attractive and fashionable?
- 6. Have you ever thought and/or tried to have a tattoo on your body?
- 7. Tattoo is forbidden in the holy books?
- 8. Do you believe that a tattoo may indicate a psychological problem?
- 9. Do you believe that a tattoo may be an indication of some sort of disturbed personality?
- 10. Do you believe that tattooing instruments may transmit AIDS and/or Hepatitis?
- 11. Tattoo is more acceptable and suitable for men than women?
- 12. Tattoo is more acceptable and suitable for women than men?
- 13. Tattoo is equally acceptable and suitable in men and women?
- 14. Tattooing is more acceptable in western culture than other cultures?
- 15. Do you think that tattooing is more acceptable to military than civilian people?
- 16. If a tattoo is serving as a sort of religious symbol, does that make it more acceptable for you?
- 17. Do you think that a tattoo on certain parts of the body will make it attractive and exotic?
- 18. Do you think that the size and the extent of a tattoo influence your acceptance of a tattoo?