

The health of tattoo artists

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ABSTRACT

Introduction: Tattoo artists perform physically demanding work. Absence means loss of income. This research examines how tattoo artists stay healthy for work.**Method:** This study is a qualitative research. The interviews were semi-structured with four categories: work method, workplace furnishment, lifestyle, and health complaints. Voluntary response sampling was conducted in Amsterdam, where 133 tattoo artists were approached via social media. The transcripts were encoded open, axially, and selectively.**Results:** 12 interviews (9%) took place. The analysis yielded seven categories: work method, lifestyle, problem-solving behaviour, attitude, emotions, social, and absence.**Discussion:** There seem to be similarities that consist of autonomy over work methods and division between work and leisure time, lifestyle adjustment, and experiencing emotional and financial satisfaction.**Conclusion:** It could be stated that tattoo artists stay healthy for work because they have the possibility to be autonomous and experience their work as valuable.**Keywords:** occupational health, prevention, tattoo artists, work method, work attitude

INTRODUCTION

The popularity of tattoos has been increasing for years. In the Netherlands, the number of tattoo shops has almost tripled in 10 years from 456 in 2009 to 1,428 in 2019 [1, 2]. In Amsterdam, for example, the number of tattoo shops has increased from 60 in 2009 to 109 in 2019. So, there are more and more people working in this sector. Two studies have been conducted about the work-related health complaints of tattoo artists. It was mentioned that 94% had back complaints, 85% neck complaints, and 74% had shoulder complaints [3]. It was reported that 65% had back pain, 41.5% finger pain, and 28.8% had muscle pain [4]. According to [3], dentists have similar complaints. This offers guidance because more is known about dentist health complaints. Work-related health complaints of dentists and dental students appear to be caused by one or a combination of the following factors: repetitive work with a static body position, an ergonomically incorrect working position, insufficient breaks during work, and the perceived work stress [5]. It will be examined whether these factors can influence the work-related health complaints of tattoo artists.

The Working Conditions Act in the Netherlands applies to employees under contract and self-employed people to which tattoo artists belong [6]. The Working Conditions Act states that work can be considered healthy if it can be performed until retirement without work-related health complaints [7]. The

two studies [3, 4] show that working as a tattoo artist can be associated with work-related health problems. Tattoo artists are responsible for their own income, work and working conditions.

If you cannot work due to health problems, there is no income. There is no employer that continues to pay salary or is responsible for an ergonomic workplace. It is therefore important to stay healthy for work. What do tattoo artists do to stay healthy for work? Have they made conscious choices to prevent work-related health problems? For example, about in which position they work? Or do they make choices about how they set up their workplace? For example, which tattoo machines and furniture they use? Or have they made choices about their lifestyle? For example, about nutrition, regular exercise, and relaxation?

Research Purpose

In occupational medicine, prevention and health promotion are becoming increasingly important than providing treatments and cures. What keeps healthy employees healthy? Little is known about this. The research purpose was to gain insights into what tattoo artists do to stay healthy for work, thus preventing absence and loss of income. The research results may provide valuable insights for both tattoo artists and occupational medicine.

METHOD

Setup

Qualitative research with semi-structured interviews was chosen because little is known about what tattoo artists do to stay healthy for work.

The METC of the University Medical Center of Utrecht has formally confirmed that the study is not subject to the WMO (Letter reference: 500414, 11-11-2020). This research was fully funded by the researcher without external funding.

Selection and Inclusion

Voluntary response sampling was conducted in Amsterdam. The tattoo artists have been approached via social media. A profile has been made on Instagram with information about the study at: **tattoo_artists_and_health**. A total of 133 tattoo artists were approached, 112 of whom work individually and 21 who work at four tattoo shops. Interested participants received additional information by Instagram messages, email, and telephone. Participants have given formal consent by signing a consent form.

The inclusion criterion has been set, as follows: working as a tattoo artist for at least one year. It was assumed that working one year as a tattoo artist should give enough work exposure to experience work-related health problems and therefore come up with solutions.

Data Collection

It was decided to interview 10 tattoo artists with a maximum interview duration of 60 minutes. It was assumed that 10 interviews would provide sufficient data saturation. A pilot interview was conducted to identify areas for improvement and to test the smartphone voice recorder. The corona measures were considered during the interviews. Four categories were used for the interview, with three to four standard open-ended questions per category.

1. Category one: work method with, for example, the question in which posture do you work?
2. Category two: workplace furnishment with, for example, the question what kind of furniture do you use?
3. Category three: lifestyle with, for example, the question what does regular exercise mean to you?
4. Category four: health complaints including the question, which health complaints are work related?

The answers gave rise to new open-ended questions. The purpose of this was to give each participant the space to give personal answers.

Data Storage and Processing

The anonymity of the participants was guaranteed by pseudonymizing the data by means of a secure key document. The audio files were encoded during the upload to the computer and deleted from the smartphone. Transcribing started after all interviews were conducted without using transcription software. The transcripts were coded. Participants have the right to access their own interview and

Table 1. Participants characteristics

Characteristics	Value
Gender	
Men	10 (83%)
Women	2 (17%)
Nationality	
Most common	Dutch
Other	American, Colombian, Syrian, Russian, British, & Italian
Age	
Average	41 years
Spread	28-68 years
Start year tattooing	
Average	2002
Spread	1975-2018
Days/week at work	
Average	5
Spread	4-7
Hours/day at work	
Average	8.25
Spread	6-12

transcript. All data will be kept for five years and will then be destroyed.

Data analysis

The first step was to code the transcripts openly with the four existing categories. This has been an iterative process, creating new categories, which have been used in subsequent transcriptions. As a precaution, all transcripts were coded a second time after the first round of coding to apply the new categories to all the transcripts and to avoid missing categories. The second step was axial coding. The existing categories were analyzed and then a number of categories were merged, separated, or renamed. As a third step, selective coding was used to develop the new categories into an answer to the research question.

RESULTS

Participants

Of the 133 tattoo artists approached, 27 responded (20%). Seven tattoo artists have indicated that they could not participate (5%). The most common reason was being busy with work. 20 tattoo artists have expressed an interest in participation (15%). It did not come to an interview with eight tattoo artists due to lack of response or cancellation of appointments (6%). 12 tattoo artists were interviewed (9%) between 02/06/2020 and 02/07/2020. 11 interviews took place physically and one via a video call.

Due to number of interested participants, it was decided to conduct 12 interviews instead of 10. **Table 1** shows the participant characteristics.

Data Analysis

Data saturation has been achieved because the subsequent interviews did not yield any new information. After analysis, six determinants were identified that influence health: work method, lifestyle, problem-solving behavior, attitude,

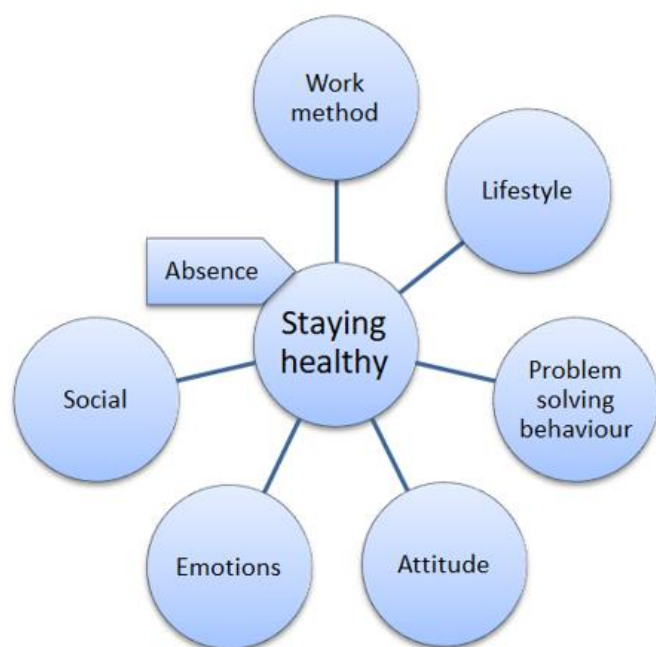


Figure 1. Seven categories after data analysis (Source: Author's own elaboration)

emotions, and social. Absence was used as an indicator of health (Figure 1). These will be explained below.

Work Method

The division between work and leisure time is determined individually. Some have alternating designing and tattooing days. The line between work and leisure time can become blurred when it has become a way of life. Experience has taught, which work posture and customer position can prevent work-related complaints. Regular breaks are taken to interrupt static working postures and exertion by means of stretching exercises and relaxation. Wanting to deliver a good end result has negative consequences for pausing and working posture.

Participant 10: "For me an optimal work posture means being able to make a good tattoo, it does not mean preventing complaints."

Rotary tattoo machines are used because the vibration and noise exposure is lower than with traditional coil tattoo machines. Tattoo machines with hand control are used instead of foot control, which allows both feet to stand flat on the floor and improves work posture. Some have invested in tables and chairs with multiple adjustment options so that the most optimal work postures can be adopted. Others have work furniture with less adjustment options.

Lifestyle

Choices have been made on several matters like regular exercise, nutrition, reducing or stopping substance use, getting enough sleep, and listening to your body. Opinions on regular exercise and nutrition were divided. Sport injuries have a negative impact on work. In the past, existing designs were tattooed in tattoo shops and working with alcohol and drugs had little influence on the end result. Over the years, customers increasingly demanded uniquely designed tattoos. As a result, the work changed from tattooing to designing and

tattooing. Being able to concentrate became important for the design process. This was not compatible with alcohol and drug use, which lead to a reduction or stop of substance use. In the tattoo artists first work years more alcohol, tobacco and marijuana were used, resulting in a decrease in work and health quality. This has led to a reduction or stop of substance use.

Problem-Solving Behavior

Several work-related problems were experienced. For example, working with reluctance or fatigue, back problems, wrist complaints due to coil tattoo machines, stress, and pain. Solutions were devised. For example, redistribution of work and leisure time, physiotherapy, optimization of work posture and customer position, regular breaks with stretching exercises, use of rotary tattoo machines, pain relief medication, marijuana, and alcohol. Using stronger drugs such as heroin is not a solution. This will lead to a negative spiral in which the increasing complaints are dampened with stronger means or larger amounts, with the endpoint being loss of health, work capacity and income. The back complaints are a result of working leaning forward for longer times. Physiotherapeutic advice is working with a straight back, which is often not possible. Indirect solutions were devised, such as regular exercise, massages and increasing sleeping comfort. Some experience minimal work-related complaints that do not require solutions.

Attitude

Being open to new developments and peer advice is seen as positive. For example, changing from coil to rotary tattoo machines, digital design and optimization of work posture and customer position. Older colleagues may have conservative practices and can be proud of their work-related complaints. Some have had an apprenticeship for a period in a tattoo shop where less freedom was experienced. The mentor has advised sports and stretching exercises, which some do regularly. Some have developed their own work method despite the efficient mentor example. Creativity and their profession are kept in development. Earning income should not be at the expense of freedom and creativity.

Emotions

As a child there was an interest in art, drawing and tattoos. The work is passion, which is shared with others and gives income.

Participant 2: "Passion keeps me healthy."

Participant 5: "If you call in sick as a tattoo artist with physical complaints, then you do not love your job enough."

Satisfaction is experienced when client and tattoo artist are happy with the end result. The stress comes from within the person, not from others and is caused by, for example, lack of work or being unable to work due to illness.

Social

Choices are made when there are partners and children. For example, to spend time on the relationship, pick up the

children from school and eating healthy. Partner interaction is not always perceived as positive, for example, when it is about work perfectionism. Partners help with putting things into perspective. It makes a person think which is later experienced as positive.

Absence

Health complaints not related to work are, for example, cardiovascular diseases, psychological complaints, the flu, atopic diseases, overweight, consequences of fractures and alcohol.

Work-related health complaints mainly consist of back complaints in addition to neck, elbow, wrist, and eye complaints.

Participant 6: "Everyone has their own complaints. Some people never have complaints, they probably have a strong back."

Working with coil tattoo machines can cause hand complaints and hearing loss. Burnout can be caused by an imbalance between work and leisure time.

DISCUSSION

What do tattoo artists do to stay healthy for work? The answer seems to be a cumulative whole, which can consist of different factors for each individual person. There seem to be similarities in the six determinants mentioned in **Figure 1**. The work-related health complaints may be controlled or prevented by making individual choices about the work method. Being independent gives the possibility to do this. Choices are made about the balance between work and leisure time, distribution of designing and tattooing days in the work week, which work posture is most important at what time, when to pause with stretching exercises, which tattoo machine and work furniture to use. There seems to be no association between work-related health complaints and the type of work furniture.

There are working positions for which no support is possible, such as with abdominal and chest tattoos where tattoo artists have to work leaning forward over the customers. Lifestyle adjustments in the areas of regular exercise, nutrition and substance use can protect and promote overall health and quality of work. Having problem-solving behaviour can have a positive influence on staying healthy for work. It is more than recognizing and acknowledging causes. It is also about devising solutions, applying them, evaluating the effects, and adjusting the plan if necessary. Some take little action probably because the quality of life remains acceptable. There is awareness that not everything can be solved immediately, which means that, for example, work-related back complaints can be accepted. Indirect solutions can then offer a solution. Being curious and self-reliant probably leads to being open to new impulses during personal development. It seems that young people have a more open attitude than older people, possibly because some older people feel that they are done with their development. Having an independent attitude and your own (work) vision can lead to a work method that is better or worse than the mentor example. When passion leads to

emotional and financial satisfaction, it will promote staying healthy for work. The division between work and leisure time is influenced by consciously spending time with partners and children. This can lead to a healthier division between work and leisure time and less income. The non-work-related health complaints do not have uniform causes. Work-related health complaints are mainly caused by the frequency and duration of specific postures where back complaints occur most often. The work surface is well lit to reduce or prevent eye strain. Coil tattoo machines are not used to prevent hand complaints and hearing loss. Not everyone has (the same) work-related complaints. Absence is rare and usually short term and mainly not the result of work-related health complaints. There are similarities between the causes of work-related health complaints of dentists and dental students mentioned by [5] and the findings of this study. Probably because both populations work in ergonomically similar postures.

The strong points of this research are having achieved data saturation and a diverse research population. The weak points are unequal distribution between men and women and 80% non-response of those approached.

CONCLUSION

The determinants work method, lifestyle, problem-solving behaviour and social (**Figure 1**) indicate that autonomous choices are made in these areas. The determinant attitude is formed by individual characteristics and personal development and may provide a framework in which autonomous choices can be made. The determinant emotion indicates that work is experienced as valuable. In summary, it could be stated that tattoo artists stay healthy for work because they have the possibility to be autonomous and experience their work as valuable. This could be a reason on why there are few incidents of work-related absence.

This conclusion can make (starting) tattoo artists aware of their own autonomy so that they can make choices in all kinds of areas (**Figure 1**) to stay healthy for work. Everyone will have to decide for themselves what suits them best because different people have different needs and wishes.

In occupational medicine, these determinants can provide a framework for examining what employees in a company or organization need to stay healthy for work. The results can lead to choices/changes on an individual and organizational level. This framework can also be applied during occupational health counseling to identify factors that may have contributed to loss of health. If these factors are changeable, counseling could focus on raising awareness and promoting one's own autonomy. This could empower employees to make choices and change these factors, which then could lead to an increase in perceived health.

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Ethical statement: The METC of the University Medical Center of Utrecht has formally confirmed that the study is not subject to the WMO (Letter reference: 500414, 11-11-2020).

Data sharing statement: Data supporting the findings and conclusions are available upon request from author.

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