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Socio-Demographic and Professional Characterization of a Representative Sample of Portuguese Tattoo Artists

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Abstract

Goals: Over time, tattooing has been better accepted and is now more prevalent. Consequently, the number of establishments and professionals increased. Methodology: This is an Exploratory/Observational/Analytical/Cross-sectional study. An online voluntary questionnaire was prepared on the Google Forms tool and made available between April 2020/March 2021, with single/multiple choice/short answer questions. Responses from individuals who practiced Tattooing in Portugal and who mastered the Portuguese language were considered. For the statistical analysis, non-parametric tests were predominantly used. The research project was approved by an Ethics Committee and informed consent was obtained. Results and Discussion: 207 questionnaires were processed (26% of the population of Tattoo Artists registered in Portugal); the female represented one third of the answers. 42.0% of Tattoo Artists didn't undergo training before exercising. Most work exclusively (60.9%) and have their own establishment (72%); those who work for others are more likely to have a second professional activity (p = 0.046). All that work at home reported having another professional activity (p < 0.001). From the 39.1% having another profession, Tattooing appears (69.1%) as the main occupation. Those who choose Tattooing as their main activity practice the profession in their own establishment (p = 0.042). Everyone recognizes the risks; the most valued were Forced/Maintained Postures/Repetitive Movements; but also Noise, old machinery and/or Monotonous/Isolated Work. No published articles were found with data regarding the correlation between socio-professional characteristics and self-perception of Occupational Risk, that allowed a formal discussion. Conclusions: The perception of professional risks increases with Professional Experience, especially when semiology arises. It would be important to have an entity that determines what training is necessary to exercise and to create Norms, and with the capacity to allow access to the labour market. If we explore how each Tattoo Artist perceives risk, it is likely that the Occupational Physician and Safety Technician will be more effective.

Keywords

Tattoo Artist, Occupational Health, Safety at Work, Worker's Health, Occupational Health Services

1. Introduction

Over the last few decades, Tattooing has been progressively more accepted by society in most countries. It is now frequent across different social classes and ages, as well as popular in both genders. Thus, in an equivalent way, the number of establishments and professionals in the field also increased. Nonetheless, given that it is a recent professional activity and with general norms/licensing, in most circumstances, these workers can escape evaluations made by Occupational Physicians and Safety Technicians [1]; additionally, the Tattoo sector is poorly developed in the context of Occupational Health and Safety, with generic services being generally available, little or not at all adapted to its specificities and the perception of little practical use may arise—which is why there is a need to investigate this area and generate knowledge to fill in this gap.

There are many published articles about the risks of Tattooing for Tattooed people, but almost none for Tattoo Artists. In the research that was carried out, none of the studies was capable of characterizing Tattoo Artists from a socio-professional point of view or relating these characteristics to their positioning and adherence to pre-defined health and safety standards, data that could be crucial for the future development of the sector and for obtaining consensus that allows joint regulation, privileging the Health and Safety of these professionals, as well as their customers. Therefore, an exploratory study was developed with the purpose of characterizing Portuguese Tattoo Artists at a socio-demographic and professional level, relating these characteristics to their behaviour towards Occupational Health and Safety.

In Portugal there is no specific legislation to regulate the activity; some national standards applied to other professional sectors with equivalent risks are used (as dentists) and some international norms/legislation related to the Tattoo sector are consulted, as included in some of the bibliography of this paper.

2. Historic Context

Tattooing can be defined as the introduction of a pigment into the dermis, using a needle [1] [2] [3].

From an historical perspective, in colder areas of the planet, it was possible to find preserved skins from the Palaeolithic phase, in which one can see the existence of simplistic designs, which are considered the first Tattoos. However, more complex examples go back to the Neolithic [1] [2]. In northern Europe, there is evidence that people like the Celts and Vikings practiced it with some frequency [2] [3] [4]. Even so, for Greeks, Romans and other European civilizations in the Middle Age, this habit was generally considered derogatory, as something practiced by less civilized peoples. In this context, the Tattoo could serve to identify possession (slavery) [2] [3], indicate that the individual was a criminal and/or even, depending on the design/symbol, identify the specific crime committed [3] [5].

In some tribes from less developed areas, the procedure was mainly aimed at representing a rite of passage [4] [6] (namely, entering adulthood) [3], mystical control of natural phenomena, belonging to a certain class in the social hierarchy [4] [7] [8] and/or simply to make themselves more attractive (due directly to the aesthetic pattern and/or the symbolism of controlling the body and pain) [7]. In the 18th century, Captain James Cook contacted several Pacific tribes that practiced Tattooing [2] [3] [4] [7] [9]. Returning to Europe, the process was disseminated to other sailors [3] [4] [7] [10].

As for the transmission of knowledge, there are no rules that regulate teaching in this sector [11]. Classically, the transmission of information was based on a master/apprentice relationship [12] [13].

In the nineties there were two [4] [14] or three [13] [15] studios in the country, all in Lisbon; two decades later, there were about three dozen establishments, more evenly distributed at the national level [4] [14], with approximately 50 and 77 Tattoo Artists, in 2007 and 2010, respectively [13] [15]. According to the National Statistics Institute (INE), in the years 2017, 2018 and 2019 (data available in 2019, 2020 and 2021), there were respectively 519, 650 and 800 individuals registered.

The first studios were located on streets with a bad atmosphere/illicit activities [13] [16]. Over time the situation has changed and, nowadays, most professionals want to be on sophisticated, exposed and central streets [4]. The number of female Tattoo Artists has been increasing, although it is still a predominantly male world [1] [17].

Despite its exponential growth, the profession is still poorly regulated and little or nothing is known about those who practice it; still, being a Tattoo Artist implies having access to several risks, since these workers are often exposed to chemical agents (especially inks) [2] [3] [17] [18] [19], biological agents (clients' blood) [1] [2] [17] [20] [21] [22], repetitive movements, forced/maintained postures, visual strain, noise, vibrations [17] [21] and work stress, factors that justify monitoring by the Occupational Health and Safety teams.

3. Methodology

This is an Exploratory, Observational, Analytical Study, of a cross-sectional nature. An online questionnaire was prepared on the Google Forms tool and made available between April 2020 and March 2021, with single or multiple choice and

short answer questions. Responses from individuals who practiced Tattooing in Portugal and who mastered the Portuguese language were considered. Its disclosure was carried out through contact with companies/professionals who provide this service; as well as the main national magazines in the sector, companies that supply products and equipment within the sector and organizing committees of the main annual national tattooing congresses. Based on the number of professionals registered in the Finance department, there was a representative sample of the population under study, taking into consideration a sampling error of 5% and a confidence interval of 90%. For the statistical analysis, after verifying the normality of the variables with the Shapiro-Wilk test, non-parametric tests were predominantly used.

The research project was approved by the Ethics Committee of the Arts Faculty of the University of Porto (Portugal) and informed consent was obtained.

4. Results and Discussion

The answers from 207 questionnaires were processed, which corresponds to about 25.87% of the population of Tattoo Artists registered in Portugal. Four questionnaires were rejected: two due to the completion of a very small percentage of questions and with incoherent answers and other two from Brazilian Tattoo Artists who worked outside Portugal. The female represented one third of the answers.

4.1. Socio-Demographic Profile of Portuguese Tattoo Artists

Table 1 shows a summary of the socio-demographic characteristics of Portuguese Tattoo Artists, as well as the correlation of some variables with age and gender. The mean age of the sample was 33.67 ± 7.04 years (minimum 20, maximum age 52) and the prevailing gender, as expected, was male (66.70%); female Tattoo Artists are younger (M = 32.24 ± 6.09) than male Tattoo Artists (M = 34.39 ± 7.36), the difference being statistically significant (p = 0.034), which seems to indicate that, despite it being an activity initially dominated by males [1] [17], there is a growing female interest in this profession.

In terms of marital status, the Tattoo Artists are evenly distributed as single, de living unions and married couples; however, there are significant differences between groups, noting that the youngest are predominantly single and the older ones are married or divorced (p = 0.001), groups where the male gender is also predominant (p = 0.001). It is worth highlighting the group of widowers who, despite being residual, are, on average, very young ($M = 35.66 \pm 2.31$ years), are entirely female and, for the most part, of non-Portuguese nationality, which seems to indicate that Tattooing can be seen as an attractive profession for those who want or need to change their lives.

As we analyse schooling, we noticed that 30.0% of individuals have higher education, although compulsory secondary education is more common; the sample is also mostly of Portuguese nationality (91.8%), though the rest work in Portugal and speak the language.

Table 1. Socio-demographic variables.

	Variables	n	Valid %	Statistical test		
	variables		v and %	Age	Gender	
	[20 - 29 years old]	63	30.7			
A ~~	[30 - 39 years old]	98	47.8		$(p = 0.034)^*$	
Age	[40 - 49 years old]	42	20.5			
	[50 - 60 years old]	2	1.0			
Gender	Male	69	66.7	(m = 0.024)*		
Gender	Female	138	33.3	$(p = 0.034)^*$		
	Single	69	33.3			
	Married	61	29.5			
Marital status	Living union	64	30.9	$(p = 0.001)^{**}$	(p = 0.001)***	
otatas	Divorced	10	4.8			
	Widow	3	1.4			
	Basic education	22	10.6			
	Secondary education	123	59.4			
	Bachelor's degree	18	8.7			
Education	Teaching certification	27	13.0	(p = 0.806)**	$(p = 0.722)^*$	
	Post-graduation	8	3.9			
	Master's degree	8	3.9			
	Doctorate degree	1	0.5			
National:	Portuguese	190	91.8	(n = 0.165*	(0.050)	
Nationality	Non-Portuguese	17	8.2	$(p = 0.165)^{4}$	$(p = 0.858)^{***}$	

^{*}Mann-Whitney U test; **Kruskal-Wallis test; ***Chi-Square Test.

No published articles were found with data on the socio-demographic characterization of Portuguese Tattoo Artists.

4.2. Professional Profile of Portuguese Tattoo Artists

The professional experience of the individuals in the sample is very heterogeneous, ranging from less than one year to more than thirty years in the profession; the median was situated at five, while the mode was fixed at two years. In **Table 2**, it is possible to consult the different professional characteristics of the Tattoo Artists that were studied.

Professional training, as already mentioned, emerges as a gap, since 42.0% of Tattoo Artists did not undergo any training to be able to exercise professionally, making it clear that there is no existing regulation in the sector. Of those who underwent training, two main groups can be distinguished: those who did an internship or worked as an apprentice to another Tattoo Artist (diverse experiences lasting between thirty days and five years) and those who attended training

Table 2. Professional characteristics of Portuguese tattoo artists.

	Variables	n	Valid
	0 to 5 years	109	52.0
	6 to 10 years	59	18.9
Professional experience	11 to 15 years	13	6.4
	16 to 20 years	15	7.3
	>to 20 years	11	5.4
Did you undergo training/ initial internship to	Yes	120	58.0
become a tattoo artist?	No	87	42.0
	Own establishment		72.0
	Establishment of another person	65	31.4
Places where you work as a tattoo artist	Society	21	10.1
	Conventions	5	2.4
	Guest-spots	10	4.8
	Always alone	87	42.0
T171 1 1 112	With one or two colleagues maximum	42	20.3
Who do you work with?	Always with three or more colleagues	12	5.8
	It varies a lot	66	31.9
	Yes	81	39.
xercises another profession No		126	60.9
	Remuneration as a Tattoo Artist is not enough	33	40.7
If yes, why do you have	Do not want to compromise retirement in the future	17	21.0
another profession?	Prefers not to exercise full time due to risks	14	17.3
	The other activity also gives pleasure and professional fulfilment	50	61.0
If yes, is being a Tattoo Artist the main activity?	Yes	56	69.1
	No	25	30.9
	To obtain the main remuneration from Tattooing	38	67.9
If it is the main activity,	To get more pleasure and professional fulfilment from Tattooing	56	100.
how do you justify it?	It is the profession used for tax purposes and contributory career	32	57.1
	Receiving socio-professional recognition from Tattooing	48	85.7

courses provided by tattoo companies (whose duration varied between three and sixty hours).

The vast majority work exclusively (60.9%) and have their own establishment (72%), while those who work for others are more likely to have a second professional activity (p = 0.046). The conventions are reasonably restricted to Tattoo Artists with more talent and reputation, a situation that is more prevalent in older individuals (p = 0.005) and/or with more years of activity (p = 0.010) [12]. In fact, only 42.0% of Tattoo Artists stated that they always worked alone, contradicting the idea that this is a profession where there is little interaction. In addition, they also work in unsuitable places, such as their own house, which in itself also reveals the deficit or even absence of professional regulation in the sector; in fact, it should be noted that all those who work at home report having another professional activity (p < 0.001), which indicates that Tattooing sometimes emerges as a professional/economic complement.

Analysing those who perform multiple functions, professional activities associated with design, such as body piercing/body modification, stand out, which perhaps explains the first reason invoked for the lack of exclusivity— the pleasure associated with exercising in these other areas. The need to enjoy extra remuneration also appears as a reason, followed by others, less expressed, such as the concern with the contributory pension or with the professional risks associated with Tattooing.

In the 39.1% of the sample that reported having another profession, Tattooing appears, for the majority (69.1%), as the main occupation, due to factors such as social recognition by clients and peers, the remuneration obtained or the associated pleasure and professional fulfilment, facts also combined with future stability, considering that it is from this activity that taxes are declared and that will have repercussions on the contributory reform. It is therefore not surprising that those who choose Tattooing as their main activity are more likely to work in their own establishment (p = 0.042), strengthening the premise that defends that the more time an individual dedicates to Tattooing, the more they invest in developing a legal company, increasing the probability of abandoning professional projects in other areas.

No published articles were found with data related to professional experience, place of work or exclusivity versus the existence of other professions (or which ones) among Portuguese or other Tattoo Artists.

4.3. Self-Perception about Professional Risk Factors

All Tattoo Artists recognized the existence of risks associated with their professional activity and, given the list of potential hazards, they used the suggested scale to assess this, taking into account their individual perception, see **Table 3**.

The most valued risk factors were Forced/Maintained Postures and Repetitive Movements; on the other hand, in an opposite situation, there were the inherent risks associated with the Noise, the handling of Machines that are old and/or in poor conditions and Monotonous and Isolated Work. The analysis of Figure 1

Table 3. Appraisal of occupational risk factors by Portuguese tattoo artists (%).

Main dangers of Tettoping	Level of risk			
Main dangers of Tattooing	Null	Reduced	Medium	High
Chemical agents	9.9	38.4	37.9	13.8
Forced/maintained postures	0.5	2.9	21.1	75.5
Repetitive movements	0.5	8.9	27.1	63.5
Machinery capable of causing injuries	9.9	40.9	30	19.2
Old machinery and/or in poor conditions	60.9	19.8	11.9	7.4
Noise	22.7	52.7	19.2	5.4
Vibrations	10.1	43.9	31.8	14.1
Visual strain, inadequate illuminance	12.8	24.1	34	29.1
Biological agents	10.4	19.9	30.3	39.3
Isolated work	28.4	38.3	21.9	11.4
Monotonous work	55.7	31.5	9.9	3.0
Extended shifts	19.3	24.8	36.6	19.3
Stress	21.4	33.3	30.3	14.9

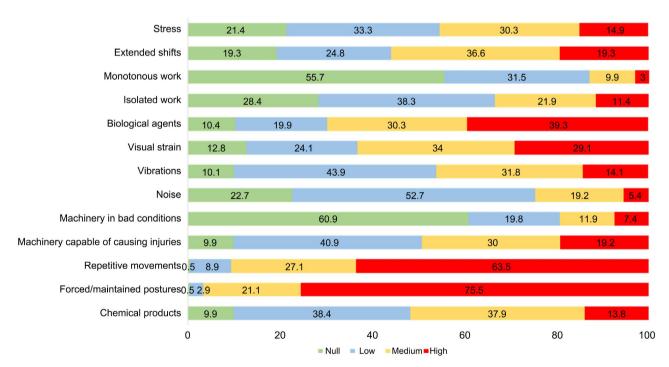


Figure 1. Percentage distribution of perceived severity of exposure to occupational risk factors.

shows that, when the two highest levels of Risk Perception (medium and high) are combined, the Forced/Maintained Postures (96.6%), Repetitive Movements (90.6%) still stand out, which are, at times, performed for long periods of time (55.9%); at a considerable distance from the former arises the Biological Risk inherent to the predictable manipulation of blood (69.6%); the skill with which

the task has to be performed, sometimes without the necessary illuminance and for long periods of time, leads to Visual Effort (63.1%); above 50% there is also the manipulation of Chemical Agents, secondary to inks and cleaning of the skin, as well as instruments and work surfaces (51.7%).

No published articles were found with data related to the self-perception of Occupational Risk and/or respective valuation among Portuguese Tattoo Artist or from other nationalities.

4.4. Socio-Professional Profile of Portuguese Tattoo Artists and Their Relationship with Self-Perception about Professional Risk

After tracing the socio-demographic and professional profile, and the Tattoo Artists' perception of professional risk, some relationships were explored (registered in Table 4).

- Age and Professional Experience

The Spearman Coefficient reveals that there is a positive and moderate statistical correlation (Rho = 0.581; p < 0.001) between Age and the number of years

 Table 4. Statistical associations between socio-demographic/professional profile and risk perception.

	Age	Years in the profession	Gender	Nationality	Education
Years of professional experience	p < 0.001*		p = 0.402*	p = 0.031*	p = 0.731**
Professional qualifications	p = 0.619*	p = 0.281*	p = 0.037***	$p = 0.129^{***}$	$p = 0.356^{***}$
Has another profession	p = 0.648*	p = 0.003*	$p = 0.546^{***}$	p = 0.735***	$p = 0.245^{***}$
Tattooing is the main activity	$p = 0.701^*$	<i>p</i> < 0.001*	$p = 0.026^{***}$	$p = 0.660^{***}$	p = 0.950***
Practices in their own establishment	<i>p</i> < 0.001*	<i>p</i> < 0.001*	$p = 0.444^{***}$	$p = 0.784^{***}$	$p = 0.462^{***}$
Works for someone else	$p = 0.007^*$	p = 0.030*	$p = 0.138^{***}$	$p = 0.046^{***}$	$p = 0.406^{***}$
Chemical agents	p = 0.019**	p = 0.077**	p = 0.030***	p = 0.369***	p = 0.898***
Forced/maintained postures	p = 0.601**	$p = 0.116^{**}$	p = 0.007***	$p = 0.094^{***}$	$p = 0.792^{***}$
Repetitive movements	p = 0.013**	p = 0.005**	$p = 0.108^{***}$	$p = 0.500^{***}$	p = 0.278***
Machinery capable of causing injuries	p = 0.577**	$p = 0.462^{**}$	p = 0.778***	p = 0.165***	p = 0.652***
Old machinery and/or in poor conditions	$p = 0.290^{**}$	$p = 0.110^{**}$	p = 0.159**	$p = 0.174^{***}$	$p = 0.609^{***}$
Noise	p = 0.535**	$p = 0.036^{**}$	$p = 0.630^{**}$	p = 0.113***	$p = 0.209^{***}$
Vibrations	p = 0.922**	p = 0.129**	$p = 0.777^{**}$	p = 0.138***	p = 0.362***
Visual strain, inadequate illuminance	$p = 0.362^{**}$	$p = 0.018^{**}$	$p = 0.228^{**}$	$p = 0.679^{***}$	$p = 0.966^{***}$
Biological agents	$p = 0.471^{**}$	$p = 0.504^{**}$	p = 0.528**	$p = 0.303^{***}$	p = 0.337***
Isolated work	$p = 0.844^{**}$	$p = 0.815^{**}$	$p = 0.962^{**}$	$p = 0.146^{***}$	p = 0.235***
Monotonous work	$p = 0.872^{**}$	$p = 0.880^{**}$	p = 0.859**	$p = 0.137^{***}$	$p = 0.194^{***}$
Extended shifts	$p = 0.307^{**}$	$p = 0.088^{**}$	$p = 0.143^{**}$	$p = 0.873^{***}$	$p = 0.290^{***}$
Stress	p = 0.115**	p = 0.268**	$p = 0.007^{**}$	$p = 0.243^{***}$	p = 0.003***

^{*}Pearson's Correlation Coefficient; *Mann-Whitney U test; **Kruskal-Wallis test; ***Chi-Square Test.

of professional practice, that is, Professional Experience increases with Age, indicating that being a Tattoo Artist is not a seasonal activity for most individuals.

It is also observed that there is a statistical association between having a second job and professional experience (p = 0.003), that is, those who have worked for more years are exclusively dedicated to Tattooing. Simultaneously, among those with many functions, it is also those who have worked for more years who choose Tattooing as their main activity (p < 0.001), it is assumed that gratification is what most individuals claim to feel [14] [23], which may indicate a future path of exclusive investment in the sector. Therefore, it is natural that the professional practice at their own establishment is statistically associated with older Tattoo Artists (p < 0.001) and with those who have worked for more years (p < 0.001), while those who work on behalf of others are statistically younger (p = 0.007) and less experienced (p = 0.03).

With regards to self-perception of professional risks, the statistically significant differences between the age and the intensity with which Tattoo Artists perceive the Chemical Risk (p = 0.019) and the danger associated with performing Repetitive Movements (p = 0.013), indicate that older people are more likely to be aware. From Professional Experience, the perception appears more associated with repetitive movements (p = 0.005), noise (p = 0.036) and visual effort (p = 0.018), but not as much with chemical risk (p = 0.077), which seems to indicate that, with more years of work, individuals may present more symptoms/pathologies, of osteoarticular, neuromuscular, visual or auditory nature, which leads them to value these factors, while for the chemical risk, the eventual initial absence of symptoms leads to their disregard, although the older professionals may eventually become more apprehensive due to the age factor [24] [25] [26].

Gender

Male Tattoo Artists, despite being statistically older than female Tattoo Artists, are not significantly more experienced (p = 0.402), which seems to indicate that men start Tattooing after having a professional career in other areas, while women begin their path as Tattoo Artists in an earlier stage of adult life; this factor may explain why men have less doubts about considering Tattooing as their main activity (p = 0.026), while women are more likely to make this activity a second job; possibly, because it is a sector not monopolized by them [1] [17]. At the same time, it may also explain the greater investment in Vocational Training (p = 0.037) by the female gender, which later translates into a greater generalized awareness of occupational hazards, from which they stand out, as the differences are statistically significant, for Risk Chemical (p = 0.030), Forced and/or Maintained Postures (p = 0.007) and Stress (p = 0.007).

- Nationality

The biggest demand and professional development in Tattooing, in other countries, may explain why non-Portuguese Tattoo Artists are, statistically, more experienced (p = 0.031); thus, their coming to Portugal could be important for

the development of the sector at a national level. It was also found that non-Portuguese Tattoo Artists are more likely to work in other people's establishments (p = 0.046), that is, most individuals who emigrate are looking for better living conditions and are more likely to have scarcer economic resources, so they are less likely to be able to set up their own studio.

- Education

Paradoxically, it is not possible to identify the influence of Tattoo Artists' education on their professional choices or on their perception of occupational risk factors, which may be the result of the lack of regulation and specific training in the area, for which the education factor is still not differentiating.

No published articles were found with data regarding correlation between socio-professional characteristics and the self-perception of Occupational Risk and/or respective valuation among Portuguese or other nationalities.

5. Conclusions

In this study, we had a representative sample of the population of Portuguese Tattoo Artists to draw their socio-demographic and professional profile and relate these features with the self-perception of occupational risks.

The professional practice of Tattooing appears to be little regulated and where professional training is not a criterion, but the result of individual choices; exercising it is thus accessible to anyone, and the beginning may arise as a result of individual initiative, as a hobby or salary supplement, without resorting to a course/education, and carried out at home. Being an activity that, most of the time, provides pleasure and professional fulfilment, as Tattoo Artists gain experience, there is a tendency to open their own studios and establish themselves in the market, giving up other parallel activities. When competence is recognized, the horizon widens and sharing experiences at guest-spots and conventions emerges.

The perception of professional risks usually increases with Professional Experience, especially when associated semiology arises because of prolonged professional practice, as with osteoarticular, neuromuscular, auditory and visual symptoms.

As is the case in other professions previously restricted to the male gender, there is a growing increase in female professionals, something that could be beneficial to the development of Occupational Health and Safety in the sector, considering its greater openness to professional training and sensitivity to the risks of this work.

Therefore, once we take into account this reality, we're able to make inferences in order to try to alleviate some of the existing problems, contributing to the achievement of a safer and healthier work environment. If the teaching of the profession was official, the quantity and quality of the knowledge transmitted would probably create a greater receptivity to work in an improved manner. It would, therefore, be important to create an entity that could determine what

type of training is needed in this area, as well as to create a set of national Good Practice Guidelines; an institution with the capacity to allow and prevent the individual's access to the legal labour market.

Training for those who already exercise must be adequate in relation to their needs, so that the process is gratifying, useful, recommendable to colleagues and be easily repeated by them in the future for other topics. It would be essential to address issues in a direct and relevant practical fashion, with appealing techniques and always leave room for Tattoo Artists to explain their doubts and what they want to obtain from the workshop, otherwise, the profitability of learning could be compromised.

Since Risk Perception also modulates the attitude towards issues related to Occupational Health and Safety, if one explores how each Tattoo Artist assimilates these issues, the Occupational Physician and the Safety Technician will likely be more successful in their mission and achieve obtaining a healthier working environment, especially in male individuals who typically have a lower Perception of Risk and greater acceptability of danger.

In addition, it may be appropriate to point out that younger Tattooists, who may be more robust and healthier and may, for the time being, have fewer complaints associated with aging and/or occupational Risk Factors, are more likely to devalue issues that could be limiting and more visible at a later stage in life.

Another subgroup of Tattoo Artists in which it may be relevant to take special care are those who work for others and/or perform other professions (and, in these, especially those who do not consider Tattooing as their main activity), since they can be having less exposure to Occupational Risk Factors and also because they are younger and/or have less autonomy, there might be a compromise of the compliance with the standards of Good Practices.

It would also be very relevant if there were Occupational Health teams with specific knowledge/experience in the sector, in order to be able to provide a service based on a scientific assessment of the job, drawing up a Risk chart and subsequent problem intervention list, mathematically ranked in depending on the probability of occurrence, severity of possible consequences, technical difficulty in resolving the issue and associated cost, in order to demonstrate effectiveness and validity to the customer, who will certainly appreciate the service provided more and will be more receptive to making their contribution to achieve a safer and healthier work environment.

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Conflicts of Interest

The author declares no conflicts of interest regarding the publication of this paper.

References

- [1] Cortelli, A. (2012) Procedimentos de biossegurança adotados por profissionais prestadores de serviços de manicure, pedicure, tatuagem, piercing e maquiagem definitiva no município de Jacarei-SP. Pós-Graduação em Saúde Pública da Universidade de S. Paulo, Mestrado em Ciências, 1-94.
- [2] Ramos, B. (2018) Desenvolvimento de métodos eletroquímicos para análise de agentes tóxicos em tintas de tatuagem. Mestrado em Bioquímica. Escola de Ciências e Tecnologias da Universidade de Évora, 1-124.
- [3] Serup, J., Linnet, J., Olsen, O., Harrit, N., Mohl, B. and Westh, H. (2015) Tattoos—Health, Risks and Culture. A Report from the Council on Health and Disease Prevention, Copenhagen, 1-157.
- [4] Ferreira, V. (2008) Marcas que demarcam-Tatuagem, Body Piercing e culturas juvenis. Imprensa de Ciências sociais. Instituto de Ciências Sociais da Universidade de Lisboa, Lisboa, 1-343.
- [5] Ferreira, V. (2011) Tatuar o corpo jovem hoje: rito de passagem ou ritual de impasse? *Vivência*, **36**, 137-156.
- [6] Gonzaga, E. (2011) As práticas de Modificações Corporais e a formação de identidades somáticas. Mestrado em Comunicação. Universidade Federal de Goiás, Goiás, 1-139.
- [7] Batista, R. (2010) A identidade estampada na pele: O quotidiano de um estúdio de Tatuagem e Body Piercing em Lisboa. Mestrado em Antropologia: Imagem e Comunicação. Instituto Universitário de Lisboa, Lisboa, 1-93.
- [8] Lorena, R. (2016) Um corpo para (de)marcar-se: Estudo psicanalítico acerca das Escarificações na adolescência. Mestrado em Psicologia Clínica. Universidade Católica de Pernambuco, Recife, 1-169.
- [9] Jesus, J. (2015) "Corpo Diplomático": Punk e Modificação Corporal. Mestrado em Sociologia. Universidade de Coimbra, Coimbra, 1-122.
- [10] França, L. (2008) As práticas profissionais de Modificações Corporais: Entre a biossegurança e as técnicas em si. Mestrado de Psicologia Social. Pontifícia Universidade Católica de S. Paulo, Paulo, 1-135.
- [11] Sousa, K., Martins, E., Costa, C., Spíndola, T., Ramos, R. and Barros, A. (2016) Saberes e práticas de biossegurança entre tatuadores: Uma contribuição do enfermeiro. *Revista de Enfermagem da Universidade Estadual do Rio de Janeiro*, **24**, e23694. https://doi.org/10.12957/reuerj.2016.23694
- [12] Oliveira, A. (2012) A tatuagem como profissão: Um ofício tornado arte? ISCTE, Universidade de Lisboa. Mestrado em Sociologia: Especialização em Comunicação e Cultura, 1-61.
- [13] Ferreira, V. (2013) Das Belas-Artes à Arte de Tatuar: Dinâmicas recentes no mundo português da Tatuagem. Criatividade e Profissionalização, 57-112.
- [14] Ferreira, V. (2008) Os Ofícios de marcar o corpo—A realização profissional de um projeto identitário. *Sociologia, Problemas e Práticas,* **58**, 71-108.
- [15] Ferreira, V. (2013) Do Ofício de periferia à Arte periférica: A criativização da prática de Tatuar. *Trajetos, Revista de Comunicação, Cultura e Educação*, **2**, 159-170.
- [16] Ferreira, V. (2014) Becoming a Heavily Tattooed Young Body: From a Bodily Experience to a Body Project. *Youth & Society*, 46, 303-337.
 https://doi.org/10.1177/0044118X11427839
- [17] Kluger, N. (2017) National Survey of Health in the Tattoo Industry: Observational Study of French Tattooists. *International Journal of Occupational Medicine and*

- Environmental Health, 30, 111-120. https://doi.org/10.13075/ijomeh.1896.00634
- [18] Council of Europe, Committee of Ministers. (2003) Resolution ResAP on Tattoos and Permanent Make up. 1-4.
- [19] Campos, S., Lestre, S., João, A. and Lobo, L. (sem ano) Exantema mercurial com reação pustular-uma forma de dermatite de contato sistémica associada à Tatuagem. Repositório do Centro Hospitalar Universitário de Lisboa Central, EPE, 1-2.
- [20] Piccinini, P., Pakalin, S., Contor, L. and Bianchi, I. (2016) Safety of Tattoos and Permanent Make-Up. Adverse Health Effects and Experience with the Council of Europe Resolution (2000). JRC Technical Reports. Report on Work Package 3. Administrative Arrangement No. 2014-33617. Analysis Conducted on Behalf of DGJUST, 1-106.
- [21] Grieshaber, D., Marshall, M. and Fuller, T. (2012) Symptoms of Musculoskeletal Disorders among Tattoo Artists. *Proceedings of the Human Factors and Ergonomics Society Annual Meeting*, 56, 1158-1162. https://doi.org/10.1177/1071181312561252
- [22] Molina, L. and Romiti, R. (2011) Molusco Contagioso em tatuagem. *Anais Brasileiros de Dermatologia*, **86**, 352-354. https://doi.org/10.1590/S0365-05962011000200022
- [23] Ferreira, V. (2007) Política do corpo e política da vida: A Tatuagem e o Body Piercing como expressão corporal de uma ética de dissidência. *Etnográfica*, 11, 291-326. https://doi.org/10.4000/etnografica.1979
- [24] Realista, A. (2014) A Perceção do Risco na atividade dos Bombeiros. Mestrado em Segurança e Higiene no Trabalho. Instituto Politécnico de Setúbal. Escola Superior de Ciências Sociais e Escola Superior de Tecnologia, 1-122.
- [25] Haas, E. and Mattson, M. (2016) A Qualitative Comparison of Susceptibility and Behavior in Recreational and Occupational Risk Environments: Implications for Promoting Health and Safety. *Journal of Communication in Healthcare*, 21, 705-713. https://doi.org/10.1080/10810730.2016.1153765
- [26] Santos, M. (2022) Symptoms, Pathologies, Accidents and Expectations, Regarding the Occupational Doctor and Safety Technician, in a Representative Sample of Portuguese Tattoo Artists. *Occupational Diseases and Environmental Medicine*, 10, 180-195. https://doi.org/10.4236/odem.2022.103014