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**Qualitative exploration of dental professionals'  
knowledge to detect torture among asylum seekers or  
immigrants with a refugee background**

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## Abstract

### **Background**

Torture treatment centers can offer a psychological and physical rehabilitation for persons that have been victims of torture. However, few of these centers have access to educated dental professionals. Torture survivors often comes to the general dental care. Our aim was to investigate how much knowledge licensed dental professionals has to detect and provide help to asylum seekers or immigrants with a refugee background who have been victims of torture.

### **Methods**

Our study was based on a questionnaire with multiple choice questions and interviews with two focus groups executed as both semi-structured interviews and focus group interviews to collect our data. Group one consists of health care personnel with expertise in the subject and group two of clinically working licensed dental staff. They were all located in the municipality of the Stockholm area.

### **Results**

Our study showed that both groups believe that there are three main problems in the current situation for this patient group: lack of finances, competence regarding treatment and time. The main findings were that more knowledge and education are considered necessary in both dental care but also in the general health care. Distinct directives are needed regarding the management, treatment and further referral of these patients.

### **Conclusion**

Results from our study showed that there is a need for an increased awareness of injuries and signs of torture in the oral cavity among dental professionals nevertheless within the general health staff to.



## Sammanfattning

### Bakgrund

Det finns center för torterade, som erbjuder psykisk och fysisk rehabilitering för personer som blivit utsatta för tortyr. Dock har få av dessa center tillgång till utbildad tandvårdspersonal. Personer som varit utsatta för tortyr hamnar ofta inom den allmänna tandvården. Vårt mål var att undersöka hur mycket kunskap legitimerad tandvårdspersonal har för att upptäcka samt hjälpa asylsökande eller invandrare med flyktingbakgrund som har utsatts för tortyr.

### Metoder

Vår studie är byggd på ett frågeformulär med flervalsfrågor samt intervjuer med två fokusgrupper som genomförts både som semistrukturerade intervjuer samt fokusgruppsintervjuer för att samla in våra data. Grupp ett bestod av vårdpersonal med kompetens inom ämnet tortyr och grupp två av kliniskt arbetande legitimerad tandvårdspersonal. De var alla stationerade i Storstockholm.

### Resultat

Vår studie visar att båda grupperna anser att det finns tre huvudproblem i den aktuella situationen för denna patientgrupp: Brist på ekonomi, kompetens angående behandling, samt tid. De huvudsakliga resultaten var att mer kunskap och utbildning anses nödvändiga, både inom tandvård och inom den allmänna vården. Särskilda direktiv behövs beträffande hantering, behandling och efterföljande remiss av dessa patienter.

### Slutsats

Resultat från vår studie visar att det finns ett behov av ökad medvetenhet om skador och tecken på tortyr i munhålan bland tandvårdspersonal likväl inom den allmänna vårdpersonalen.



## Authors' contributions

We have organized our work in the most equal way possible. Since we ourselves have structured the entire work with our own study design, we had to work in stages. Therefore, it has not been possible to divide parts of the work completely, so we had to cooperate together with all parts of the thesis during the entire process.

The study design we planned and wrote together, we wrote drafts of questions for interviews and surveys together. We chose to split outreach and contact with interviews participants for more time-efficient work but included each other in the various mail conversations.

All interviews have been conducted with both students present.

During the transcription of the interviews they were divided equally among the students, we transcribed separately.

Evelina summarized all transcribed material from the interviews while Karoline compiled the data from the questionnaires. The statistical analysis of the interviews was done together, but the interviews were evenly shared among ourselves. Finally, we compiled the data together in order to avoid sources of error.

The thesis was completed jointly, we divided some parts, but all together all the included parts of the thesis were written together and proofread jointly. Karoline shortened the introduction from the half-time seminar, Evelina wrote "Authors' contributions" and "Acknowledgements"



## Introduction

Sweden has signed the UN General Assembly, the universal declaration of Human Rights 1980 (1), which, among other things, states that “*The victim to action of torture receives reasonable and adequate remedy, and a complete recovery of health*”. This means that it is of the utmost importance that even healthcare professionals have the skills to notice any signs of torture although many problems exist today regarding the management and understanding of these patients (2).

According to UNHCR, 68.5 million people, around the world were refugees by the end of 2017 (25.4 million refugees, 40 million internally displaced, 3.1 million asylum-seekers) (3) Quote” *A refugee is someone who has been forced to flee his or her country because of persecution, war or violence. A refugee has a well-founded fear of persecution for reasons of race, religion, nationality, political opinion or membership in a particular social group. Most likely, they cannot return home or are afraid to do so. War and ethnic, tribal and religious violence are leading causes of refugees fleeing their countries*” (3). A Swedish study from the Red Cross University College indicates that 30% of newly arrived refugees from Syria have experience of torture (4) and according to Amnesty International (5) ill-treatment and torture are exerted in more than half of the world’s countries. Quote: *According to Amnesty International every third country practices torture, and the use of torture worldwide seems to be increasing* (6, 7). However, few healthcare providers know what torture is and means.

## Laws and regulations in Sweden

Sweden has signed the UN General Assembly, the universal declaration of Human Rights 1980 (1), which states that:

- Each State partly shall ensure in its legal system that the victim to action of torture receives redress and receives an enforceable right to a reasonable and adequate remedy, thereby also means for such a complete recovery of health as possible (1, part1 article 3).



Sweden has also signed the Istanbul Protocol which was developed by United Nations 1999 (8) to identify and protect individuals from ill-treatment and torture. This protocol describes a distinct trial of torture investigations. The investigation consists of a medical part and a legal investigation (8, 9). However, in order for this investigation (8) to be carried out, it is either required that the person himself can, dares and manages to tell about his trauma or that it is suspected and reported by someone at the authorities with whom the refugee is in contact. For example, the healthcare, the social insurance office, the employment office, the migration agency etc. This means that it is of the utmost importance that even healthcare professionals have the skills to notice any signs of torture.

Applicable people where it has been established that they have been victims of torture, extra protection is provided in the asylum process, reversed burden of proof applies (2). Which additionally highlights the importance of noticing and reporting previous torture. But many problems exist today regarding the management and understanding of these patients, quotes: *"The person suffering from torture injuries becomes the patient who comes back to the healthcare center repeatedly with pain that no one understands..."* *"Despite the fact that PTSD is a natural reaction to an unnatural situation, few in the healthcare system recognize the symptoms"* (translated by us from Swedish (2)).

### **Psychological signs of torture**

According to most clinicians and researchers, it is clear that *"the extreme nature of the torture event is powerful enough on its own to produce mental and emotional consequences, regardless of the individual's pre-torture psychological status."* (8, p. 45). However, the severity of the psychological consequences of torture occur in conjunction with personal attribution, personality development and social, political and cultural factors. Therefore, it cannot be assumed that all forms of torture have the same results in all human beings.

Researchers agree that there is an accumulation of symptoms and psychological reactions that have been observed and documented in torture



survivors with some regularity (8). Many torture victims experience severe psychological symptoms and emotional reactions (10, 11). Post-traumatic stress disorder (PTSD) and major depression are the main psychiatric disorders associated with torture. These disorders are also present in the general population, but their prevalence is much higher among traumatized populations (8).

### **Dental anxiety and neglect of personal oral health**

It is well known that many people all over the world suffer from dental anxiety, but in this specific patient group it can be more than just anxiety or phobia (10, 11). People who have been exposed to torture have a risk of reliving the trauma during a visit to the dentist, a situation that may trigger recollection of torture (6). The oral cavity is a highly private area of the body, in the situation of being at the dentist's it may be perceived that you do not have control over the situation (6).

According to a study of Hoyvik et al (6) on dental anxiety in relation to torture experiences and symptoms of PTSD they found that 62% of the torture survivors had experiences of torture against their face, 35% against their mouth and 23% against their teeth. They also found that the odds of being highly dentally anxious was 6.1 times higher in refugees with torture experience and 9.3 times higher in torture victims with PTSD symptoms compared to other refugees (6).

In this study, they also highlight what can be seen as a gender problem. Among the female refugees in the study who reported that they had not been tortured, 31% had been sexually abused which is a known risk factor for dental anxiety when the abuse involves oral penetration (6).

Lamb et al (13) tells in their study from 2009, with the aim of examining the oral health of refugees from Hazara that the participants themselves experienced having poor oral hygiene and that they did not prioritize their oral health.

The vast majority had experienced traumatic and violent occasions in connection with war and looting. They also reported that they had little or no



access to dental care or instructions in oral health. In addition, the majority had gone along with untreated pain originating from teeth or oral cavity that arose in connection with violence or torture (13). This information agrees well with Singh H et.al study (12) where the participants experienced their dental health as inferior or poor.

Singh H et al (12) also mentions in their study the importance of dentists who understand the needs of tortured victims, and the significance of torture treatment centers to offer an environment with educated dental professionals who can provide oral health services of torture survivors without the risk of re-traumatization.

### **Investigation and documentation of torture**

It is important that dentists and other health care services who are investigating the torture survivor have knowledge of torture methods, common injuries arising from it and to be able to describe the different clinical findings observed in a correct and impartial manner (12, 15).

However, the perception of dental professionals, who are to provide these torture survivors with dental care, is insufficiently knowledgeable since this group of patients only comprises a small proportion of their clientele (13).

Identifying and documenting torture damage is difficult. Especially if the oral cavity has active oral pathological processes such as caries and/or periodontitis. It can be easier to detect in a relatively healthy mouth where an injury does not fit the general pattern, for example, a canine tooth which is missing in an otherwise relatively healthy mouth with an intact set of teeth. However, the occurrence of pathological processes does not preclude torture from taking place, it only makes it harder for the practitioner to objectively determine the cause of the damage. And a high incidence of active oral pathological process in torture victims has also been reported in other studies (12, 16). The complex nature of the findings illuminates the importance of an experienced dentist or forensic dentist performing the examinations (17).

According to a study by Bolling P. et al 1978 (18) they found that it is very difficult to find uniform signs of torture. The conclusion of their study was



that some of the reasons may be that the practitioner does not know the oral status before the torture has occurred but also the length of time between when the torture took place and the examination was conducted (18). The dilemma of finding signs of uniformity can also depend on where in the world the torture has been carried out, as the study Forrest DM 1999 (19) illuminates, as different methods are used in different countries and regions.

### **Torture damage to the oral cavity and face - clinical signs**

The Istanbul protocol (8), indicates some types of torture methods against the oral cavity that are known. Extraction and grinding / breaking of teeth or application of electric current to teeth is rewritten.

Application of electric current can lead to several conditions, there among: loss or rupture of the teeth, pain, gingivitis, stomatitis, mandibular fractures, dental filling fractures or displaced fillings. It can also cause the victim to bite into the tongue or lips, which can cause damage or scars (8, 20).

Lesions in the oral cavity can also occur by having objects or materials forced into the mouth.

There are also written about mandibular fractures as a result of blows to the jaw, or subluxation of the mandibula as a result of muscle spasms arising from electric currents or impact on the face. Which can cause TMD/TMJ problems or limitation of jaw movement (8).

Torture may also include sexual abuse in the oral cavity, chemical torture where the victims are coerced to swallow toxins, for example, thallium or large amounts of drugs. It also includes mock-executions by e.g. waterboarding which awakens extremely strong near-death feelings and can be seen as one of the most severe experiences a human being may encounter (21).

In a Danish study by Sara A et al (17) clinical forensic examinations were conducted of alleged torture victims at the university of Copenhagen. Of the 33 persons who underwent an odontological examination. The four cases where the violence from the torture had a direct impact on the teeth consist of extractions with pliers (3 of the cases) and that the teeth have been



"ground with a file" (1 case) (17). These types of torture methods in the oral cavity are also consistent with Torture atlas (22).

According to the study by Sara A et al (17), some of the symptoms noted during the clinical examination were complaints from patients about problems with the daily oral function. It included pain and / or tenderness during jaw movements and problems during common food consumption due to lack of teeth and pain linked to chewing (17).

### **Examination of the oral cavity and teeth during visible or suspected torture damage**

A dental examination should be seen as part of the physical and psychological examination that a torture injured should be offered. However, we know that the oral cavity often becomes neglected, detention people often don't have access to dental care or have poor quality dental care (14, 23).

### **Examples of torture methods**

Forrest D et al (14) describes different torture methods, below is a summary:

In prison: poor conditions e.g. none or very little food / drink access. No access to hygiene facilities or medical treatment. Locked in total darkness with intermittent exposure to very bright light, extreme heat or cold.

Psychological torture: Famine, mock executions, provocations, insults and threat of torture, violence or rape on family members.

Physical torture: Torture sessions by authority personnel with or without weapons or other attachments such as suspension, blindfold, hoods, "Apollo"-helmets etc.

Effects: Presence of bruising, bleeding, open wounds or other injuries. Symptoms such as hematuria, internal pain, dizziness, visual impairments or hearing loss, as well as the presence of permanent physical or mental injuries (14).

Below you will find a bit more detailed types of torture methods against the oral cavity and face:



Electrical torture: Electrodes placed in different areas on the body of the victim and electricity is added. This occurs e.g. on the tongue, gums and/or lips but can also be applied directly to one or several teeth (24). If it's applied on soft tissue it often leaves burn marks or scars (22). It can also be added to other parts of the body, but the muscle spasms from the electricity can cause the victim to press their teeth so they fracture (24).

Excessive use of force: Blows towards the victim's body can often include the face and blunt injuries is the most common result (22). This may not affect the teeth to a greater extent, but it can cause the mandibula to fracture which can be seen on x-ray (both if it's a fracture but also if it's a healed fracture (22).

Asphyxiation, Submarino, Dry marino: Oxygen deprivation by suffocation is also a common method. It usually leaves no marks, but the physiological effects are massive (22). It is important for dental staff to know about since a visit to the dentist may remind the torture survivor of the situation (6). Normal respiration is prevented through various methods, wet towel over nose and mouth, dip the head in a bucket of water, stools, vomit etc. Dry marino achieves the same effect but through e.g. plastic bag over the head or to force the victim to inhale strong pepper, cement etc. (22). Asphyxiation can give several complications including congestion of the face and infections in the mouth (22).



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## Aim

Our aim was to investigate how much knowledge dental professionals has to detect and provide help to asylum seekers or immigrants with a refugee background who have been victims of torture.



## Materials and Methods

### Study group

The present study was based on interviews and questionnaire, with two focus groups executed as both semi-structured interviews (Group one) and focus group interviews (Group two). We chose to use focus groups in Group two in order to be able to examine knowledge and perceptions about the topic more openly and to have the participants interact with each other to a greater extend. The questionnaire and the interview questions are included as attachments. (Appendix 1, 2, 3)

Thirty-nine participants (dental clinics and healthcare professionals with specialized knowledge in the subject) were invited to take part in the study.

The study participants were recruited from the Internet (dental clinics within the municipality of Stockholm area) and healthcare professionals with specialized knowledge in the subject, through our supervisor's, our own or other participants' network.

Out of the 39 different clinics and healthcare professionals with specialized knowledge in the subject we contacted, there were only 5 clinics (with a total of 16 licensed dental professionals) who wanted to participate and 6 participants with specialized knowledge in the subject (from now on named "specialists" or "Group one" in this study) with different background in the healthcare sector (see pie chart, **Figure 1**).

We contacted the dental clinics and specialists by email with a brief information about us, the purpose of the study and an invitation to participate.

Once we got in touch with the participants we sent a more detailed background information, a form of consent and booked a meeting for the interview.

The location of the interview was chosen based on where it was most appropriate for the participant to meet. All interviews except one were held at the participants' clinics or offices.



One participant in Group one was unable to find time to meet, after which the questions were sent to them by email and returned written answers to us.

Our material was collected from interviews of two different groups; Group one (n= 6) consisted of participants who had expertise in the subject and individual interviews were carried out with these participants. In this group we used semi-structured interviews.

Group two (n=16) consisted of clinically working licensed dental staff and the interviews were executed in groups of two or more, except in two interview groups where only one participant was present due to illness. In this group we used focus group interviews.

The reason why we did not only interview licensed dental professionals was to acquire more knowledge in the subject. Therefore, we interviewed doctors and psychologists who are well versed in the subject through education or professional experience (Group one). The information collected from their interviews contributed as a knowledge supplement to validate the response from the interviews in Group two and to get more information about the current situation for this patient group today.

We have not taken any consideration in what kind of patients the clinic has listed.

Inclusion criteria: Licensed medical and dental staff in the municipality of Stockholm area.

Exclusion criteria: Medical and dental staff working outside the municipality of Stockholm area and not licensed medical and dental staff.

### **Study design**

Our method was to use semi-structured and focus-group interviews to collect our data. To increase credibility, we chose to use these two different methods to get a wider illumination (triangulation). Whereupon we chose to interview participants from different profession perspectives and relations to the subject. By using head line questions instead of multiple detailed questions, our intention was to control the conversation less and let the informant



naturally and freely talk about the issue based on his knowledge and personal experiences (26). The main questions and the subsequent follow-up questions have been carefully formulated by ourselves to produce as profound and exhaustive answers as possible in order to answer our aim and hypothesis.

Step one started by formulating Twenty-Three questions that we discussed with our supervisors. Based on this, we categorized and grouped the questions, reduced the number of questions and considered thoroughly the design and construction of each question.

Step two was to categorize the questions into main questions and sub-questions (Appendix 5 & 6). The main questions were the most comprehensive and most important ones, while the sub-questions belonged to the same category as the main question but was more detailed and contributed to a larger perspective.

Our aim was that the main question would lead to a natural transition from question to discussion, but if that was not the result, we used the sub-questions as an implement to naturally lead the discussion forward. The discussions in the various interviews have evolved differently and have varied flow, therefore a varying number of sub-questions have been asked or answered. We have included this in the evaluation of the data from the interviews.

Before the actual interviews each participant received a questionnaire (Appendix 1 and 2) with multiple choice questions, see **Table. 1** and **Table. 2**. This was anonymous to the extent that the professional title, years as professional, whether they're working in private, public or state sector and age will be included.

The interview was divided into six headline questions with two to four sub-questions on the same topic as each headline question. The interview questions can be found under Appendix 4. The headline questions were asked to all participants, but if the subsequent answer/discussion did not lead to a conclusion or alternatively the participant could not answer the question extensively, one or more sub-questions were asked. Each interview lasted approximately 30 minutes and was scheduled during lunch or after working



hours. We invited all participants to a small snack (sweets/sandwich and coffee / tea) during the interview.

### **Data analysis**

All of the interviews were transcribed. The interview data was then processed in four steps (27) Step one was to code in keywords. We first read through the transcribed material and took out illustrative quotes from the most important and recurring parts of the interviews. At the same time, we did a summary of the interviews to get a comprehensible overview of what is important. That also helped us in the continued processing of the data. Step two was intended to find themes in the selected illustrative quotes and get an overview of how different quotes from different interviews were connected. (Appendix 3) We decided on themes that were relevant to our aim and mutually exclusive, which means that the keywords with related quotes can only be classified under one theme. If themes repeated in several informants, we used the same theme on each informant. In order for us to know what the theme included it had to be defined e.g. by linking to a quote from the informant. Each informant, quotation and theme were given an identity in the form of numbers, beginning with the informant's number, then the theme's number and lastly the quotation number e.g. 1:2:1.

Step three was coding each theme in subcategories. All interviews were categorized into themes (explained above in "step two") and the same themes applied to all informants. We collected all the quotes from the same theme (from all informants) and went through them to examine whether they can all be attributed to a dimension, and whether they described different aspects of the same dimension. When two different quotes belonged to the same theme, but they described different aspects of importance, the quotes were given different subcategories within the same theme.

A clear definition was made for which quote we sorted in which subcategory and an additional code was added to the identity number e.g. 1:2(a):1 (informant 1, theme 2, subcategory a, quote 1). At the same time, a correction template was made as a reliability-check through a separate list of the theme's names and definitions, the subcategories' names and definitions, and which



citations belonged. The correction template was revised twice by ourselves. The reliability check was done through inter-judge verification (we let another person get all the quotes and asked him to sort them according to our definitions/themes). We have excluded all answers where the participants could not answer the question in an adequate way, e.g. “don't know”, “no idea”, “nothing” in the reliability check. We made a comparison between this sort and our correction template and calculated the percentage match (reliability) by calculating the number of matches/ total number sorted, multiplied by a hundred. According to Graneheim & Lundman (27) a consensus over 80% should be achieved before categorization is complete and this was achieved in the inter-judge verification. Step four meant searching patterns or types to achieve a result. We collected a summary of the selected quotes in a large table to get a clear picture of all the data and were thus able to more easily compare quotes and see how they corresponded with each other and through that reached a conclusion.

To increase the reliability of our results we have chosen to remove some questions that the majority of participants have not been asked or answered and made an addition in the interviews if there were parts that were missing or needed to be clarified. We have tried to ensure that interview data is detailed with many followed-up questions during the interview as well as many quotes that support each theme. We have written down our own opinions from the beginning to prevent our preconceived opinion from affecting the results.

According to Hedin (26), an interview study does not produce results in form of statistics or figures like quantitative studies, whereupon it was not possible to use a significance level in our study.

The data are calculated and compiled into tables in Excel for Mac version 16.32(19120802).



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## Ethical Considerations

All participants have signed a consent form containing: form (anonymous), plan, aim, method, research chief, that it is voluntary to participate, they had the right to end their participation at any time. The consent form was sent well in advance of the interview. The studies follow the Helsinki convention and “good clinical practice” (28).



## Results

The results from the interviews is described below by a summary of what the participants in both groups said in the interviews as well as illustrative quotes from each theme. The quotes have been translated by us from Swedish to English. The results from the questionnaires are summarized in **Table 1** and **Table 2**.

### **Patient Contact**

The majority of Group one (5 out of 6 participants) had the impression that most of their patients who have been subjected to torture or torture-like methods self-sought care or received a referral via the care. Other ways for patients to come into contact with this care are through the employment service, the social service, the municipality or the relative's notification.

*“There were referrals from health centers and psychiatry, but also reports from employment agencies and SFI (Swedish for immigrants) teachers”* (psychologist)

### **Collaboration**

In Group one, the participants had varying degrees of collaboration, primarily collaboration with other care units, but rarely dental care. Participants expressed a desire for increased cooperation between psychiatric care, healthcare and dental care. Two participants have a collaboration with a dentist and they are experiencing that it provides a faster rehabilitation by this method. No one in Group one has received a referral or has been consulted by a dentist or other legitimate dental professionals with questions regarding patients with confirmed or suspected torture injuries.

Group two experienced a lack of collaboration between different healthcare providers.

*“The occasions when I had a collaboration with a dentist or a dental professional, things have been moving a lot quicker”* (psychologist)



*“But there should be more collaboration between different caregivers”*  
(dentist)

### **Localizations of torture injuries**

Three participants in Group one mentioned the upper body as the main location for torture injuries. Other body parts mentioned was foot sole. It was considered difficult to pronounce any particular location/part of the body as particularly exposed, the experience of the participants was a general torture involving the whole body.

*“Hard to say if there were any area that were more exposed”* (psychologist)

*“Upper body”* (doctor)

### **Torture methods**

Three participants in Group one mentioned electric torture either directly against the teeth or on another body part. The second method led to that the teeth are damaged or alternatively lost secondary due to heavy biting. Strokes and abuse were mentioned in three of the interviews and two participants mentioned sexual abuse and Falacka as common methods. Other tortures cited occasionally was Palestinian hanging, pulling or filing teeth and chemical torture with toxic substances.

In Group two, all participants could mention suggestions of torture methods but did not name according to the terminology. The interview groups dealt with acts such as abuse, mental and physical abuse and rape on the question of possible torture methods.

*“Most basic are signs that may not show that torture occurred directly to the mouth and jaw, but which occurs because you get hit in the head or you fall and cannot receive with your hands”* (psychologist)

*“Electric torture... directly against the teeth”* (psychologist)



## General and symptoms of torture

Group one was consistent in that pain or pain sensitivity is a general symptom of torture. The majority (4 of 6) state PTSD as a general symptom. Three participants mentioned impaired concentration, cooperative difficulties and learning problems e.g. inability to learn a new language. Three participants considered that rapid mood swings, alternating reactions, ward of aggression can be typical symptoms. Equally many claimed that tortured patients are scared of health care situations at large as it evokes memories of trauma.

All of the interview groups in Group two have thoughts on what symptoms patients who have been subjected to torture or torture-like methods may exhibit e.g. difficult to absorb information, fear, inability to trust. The majority of Group two claimed that there is a mental health problem in a person who has been subjected to torture.

*“Dental fear, cooperative difficulties, atypical pain, chronic pain, etc.”*  
(dentist)

*“Affects ability or desire to care for themselves”* (dentist)

## Injuries and symptoms in the oral cavity due to torture

Three out of 6 participants in Group one believed that poor oral hygiene and a high need for treatment are general symptoms/signs in the oral cavity that has subjected to torture. Equally many participants mentioned dental fear. Two participants mentioned pain, toothache, bruxism and burn marks. Other symptoms / injuries that participants generally stated was e.g. impact on daily function, social impact, underweight due to difficulty eating, root remnants and missing teeth. One participant did choose not to answer the question.

In Group two, there was a wide variation in responses regarding physical symptoms and atypical damage to the oral cavity following torture. The broad subject of trauma was mentioned many times by all participants. Missing teeth, root remnants, necrotic teeth, tooth fractures, poor dental status, wounds, drug damage, bruxism, wear after grinding and mucosal scarring was symptoms / atypical injuries that participants in Group two cited as possible symptoms of torture.



*“No, maybe if it is well visible, but I am not aware any special signs” (dentist)*

*“Burn marks in the oral mucosa, teeth extracted with remaining roots in the jaw, classic trauma injuries, tooth grinding secondary to stress” (dentist)*

## **General knowledge torture**

The plurality of Group one (4 out of 6 participants) considered that there is a lack of knowledge or competence regarding torture in general in health care including dental care. One participant chose not to answer the question and one could not assess other professions.

The majority in group two experienced a general lack of knowledge in the subject of torture and that more knowledge in the union is needed.

*” Insecurities regarding the entire situation, meaning the right to medical care, what does it mean to be in this part of the asylum process and what is meaningful to do” (psychologist)*

*“I think there is no knowledge” (dentist)*

## **How Common is injuries in the oral cavity from torture?**

There was a varying view of how common it is with injuries in and around the oral cavity as a result of torture in Group one. Four participants indicated that a large proportion of patients and thus very common, one of these participants estimated that about one third of the patients she met had torture injuries in or around the oral cavity. Three participants cited that there is a large hidden statistic because the mouth was not examined.

All participants in Group two stated that they had never met a patient who had been subjected to torture and could not estimate how common it is with injuries in and around the oral cavity as a result of torture. Participants suspected that the reason why torture suspicion was not aroused is because it is difficult to investigate as the patient himself must talk about his experience and that torture is a sensitive topic to talk about even to a health care provider. A legitimized dentist in the public dental office stated that he treats all asylum-seeking patients at his clinic (with a large catchment area) but has never seen injuries to the oral cavity caused by torture.



*“Injuries in the mouth is very common and is a criterion for me to even get the referral” (dentist)*

*“Surely there was a great unrecorded number where I had not asked or where it had not come forth or where there was no reason for me to try to gain more knowledge” (psychologist)*

### **Previous investigation**

The majority in Group one claimed it is unusual or that the background has never been investigated before they meet the patient at their instances. One participant claimed that background has been previously investigated and that previous x-rays and clinical photography are included in the referral. One participant has chosen not to answer.

*“I don’t think I ever got a patient where there were any expressed questions or thoughts or views about that kind of violence” (doctor)*

### **Knowledge of the importance of the oral cavity in torture**

Group one generally considered that there is low knowledge among general dentists about the importance of oral cavity in torture, but they state that it is difficult to declare themselves in the issue of another profession.

In general, Group two considered that the unions’ knowledge of the importance of the oral cavity in torture is inadequate. Two out of five interview groups claimed they did not have the knowledge to identify injuries in and around the oral cavity caused by torture. In one of the interviews, participants considered that the dental profession has knowledge enough to restore good functionality and perform restorative treatment on patients with torture injuries, but that the psychological care of these patients is affected by work experience and where, geographically, you work. They considered that you get a different experience of working in the suburb versus the inner city. General consensus from all participants was that they have no basic knowledge to identify torture injuries.

*“Torture also occurs in the oral cavity, meaning the physical damage... but also, of course, the ability to use the mouth in different ways can be affected*



*by psychological reasons after torture, not only by pure physical damage”*  
(psychologist)

*“Generally, I would think that is not the case. Dental professionals generally do not have the knowledge to distinguish any types of assault injuries from accidental injuries”* (dentist)

## **Definition of torture**

The plurality (4 out of 6 participants) in Group one formulated the definition of torture such as causing another person pain and suffering in different ways, the act must be performed by a public official or other person acting in an official capacity for such purposes as obtaining from him or a third person information or a confession, punishing him for an act he or a third person has committed, or intimidating or coercing him or a third person for any reason based on discrimination of any kind. The remaining participants declared torture similar but did not mention that the act is performed by a public official or other person acting in an official capacity.

In general, Group two had difficulty formulating the definition of torture, but there was a consensus among the participants that torture is about causing another person pain and suffering in different ways. In two interview groups, torture is linked to politics, war or a higher purpose of extracting information.

*“That someone else knowingly is exposing you, for a purpose that may be to obtain information or to break down the person, and that it is a state authority or organization that has control over that geographical area, the acts of IS is considered torture in this case even though they are not a state. And it can be mental, it can be physical”* (psychologist)

*“Inducing pain to get information, political motives, deliberately inducing pain on another person for a higher purpose, intimidate or getting information or something”* (dentist)

## **Documentation and handling**

All in group one considered that accurate documentation of oral information, from the patient, as well as physical and mental injuries is if the utmost



importance. Documentation of the injury should be done with clinical photos, x-rays and written in the journal regarding color, shape and spreading, according to the participants. Four out of six participants considered it important to take time in conversation with the patient, to be able to document and manage torture cases. Three participants emphasized the importance of the meeting between the patient and the caregiver, that it is important to ask open questions in dialogue, one of these expressed the importance of having access to an interpreter in situations this is required. One participant considered that violence/torture should be used as a differential diagnosis for natural causes such as accidents. One participant explained that it is enough to write that one suspects that the patient has been subjected to torture, it need not to be confirmed.

In Group two there were major differences between clinicians' routines when it comes to documenting and handling suspected or confirmed torture injuries. One participant stated that he did not document but only treated, he claimed there is no continued help/support to apply for this patient group. Other interview groups stated that they ask the patient whether they want further to help/be referred. Other interview groups mentioned the police report or the report to the Social Board as conceivable measures/instances. Generally, the participants claimed that they documented all identified injuries according to practice with e.g. digital photographs, x-rays, detailed journaling and medical history. Three of the interview groups highlighted the importance of daring to as the patient but at the same time proceed cautiously.

*“General guidelines apply to the treatment of trauma cases with accurate medical history, good X-ray documentation and clinical examination, and also that violence/torture should be used as a differential diagnosis when diagnosing other possible causes (trauma, accident – natural causes)”*  
(dentist)

*“No idea, I suppose it should be handled like all other injuries of the same type”* (dentist).



## Further processing and referring

Group one showed good knowledge of how/where further treatment can be done. Few participants mentioned the same but all mentioned instances to send the patient on for further treatment and disposal. Three participants mentioned specialist dentistry, two participants refer to the police, two said general dentists. Other proposals were e.g. Amnesty, the international Criminal Court, the Migration Board (must break confidentiality), psychiatry, pain clinic, general health care, crisis center, Social Board.

No one in Group two was sure how to process/refer these patients to other instances, but all interview groups had relevant suggestions on which instances it could be e.g. The National Board of Health, The Red Cross, general psychiatry, medical dentistry, specialists in ear-nose and throat and physiotherapist. However, there was uncertainty about what to call on, fear of breaking the duty of confidentiality. One interview group considered that dental professionals should only treat the mouth and not have the task of referring further patients to further care. One participant claimed that his patients had already received other care before the start of dental care.

*“No, I have no address or phone number or direct contact to anyone who takes care of it” (dentist)*

## Treatment (psychical and physical)

With regard to treatment of torture-injured patients, four participants stated that one should treat the actual injury/pain or e.g. ongoing sleeping problems in the emergency phase. Two participants indicated referral to psychiatric treatment. Some participants declared that one should be very careful while treating and use the same method as in treatment of children. One participant proposed to anesthetize patients for dental treatment in the first stage of rehabilitation. One has chosen not to answer.

All of Group two interview groups, except one, do not consider themselves knowledgeable about the treatment and rehabilitation of torture injuries in the oral cavity/face. The interview group that could answer the question said that the treatment does not differ from treatment of other types of trauma, they



considered that even scared and traumatized patients can well be treated by general dentists, but they state that they themselves have not treated patients who have been subjected to torture.

*“For example, as we do with children, I think you can use some of that knowledge. You start by building a trust and you have to be very careful in your treatment, you may not be able to finish a whole treatment, you might be able to look at the lower jaw at the first visit”* (psychologist)

*“It is sensitive, very sensitive, first you try to help urgently, and then you see if it is possible to continue treatment”* (dentist)

### **The importance of replacing teeth**

The majority (5 out of 6 participants) in Group one considered that it is of the utmost importance to replace lost teeth, the last participant believed that it depends on which teeth are missing. Participants argued that dental replacement is important for function, aesthetics and in social context and a constant reminder of the torture if lost teeth is not replaced. One participant, however, found that it is very difficult to do dental replacement on a tortured patient as much is required of the dental professionals. One participant explained that patients who have been subjected to torture are entitled to full rehabilitation according to the Torture Convention.

*“It may be quite individual what you have for notions about the importance of teeth, but for most of us it is quite important”* (psychologist)

*“I think it is difficult and requires incredible caution and patience from the dentist, but I think there is a great desire for rehabilitation, if teeth have fallen out or been knocked out”* (psychologist)

### **Basic education in torture**

Two participants in Group one felt that there is a need for more education and knowledge of what torture means. Another participant explained that “Transkulturellt Centrum” provides such education but that few dental personnel participate. The same participant suggested that education on



torture can take place at “Riksstämman” and thus become more accessible to dental professionals.

One interview group in Group two, felt that in general, more education and knowledge would be needed throughout the care. A participant in the same interview group believes that it should not be included in the dental profession to take care of this patient group and that further education is therefore not necessary. Other participants chose not to answer the question.

*“Not meaning that everyone should be specialists, but one should have a proper basic knowledge to be aware that a very large number of the refugees that comes to Sweden today have been victims of torture”* (psychologist)

*“Not just dental care, but the entire health care system, including doctors, everyone should get more basic knowledge since the situation is as it is”* (dentist)

## **Improvement actions**

The majority (5 out of 6 participants) in Group one felt that more education was required within the subject of torture and wanted basic knowledge in the entire care system. Four participants desired that one should tone down questions about torture in order to make it easier to handle, like any trauma. Two participants want torture-injury-documentation to be standard for documenting injuries to tortured patients and to certify that it is unlikely that anything other than torture has caused these injuries. Two participants wanted more financial space for this patient group. The other wishes were e.g. more collaboration between different care units, more time, an in-depth specialist unit that works exclusively with documentation of torture injuries, and clearer contact paths to other agencies that make it easier for healthcare professionals to refer patients to proper care.

Contact information for further instances, education, collaboration between dentists, psychologists and doctors were general and recurring actions that interview groups in Group two desired as actions to improve the situation of patients who were tortured. Other suggestions for improvement actions were e.g. a specialized clinic for this patient group, enables information in all



languages, a greater empathy from the union in general and that dentists become better at booking patients on return visits.

*“The collaboration between doctors and dentists should be better”* (dentist)

*“Get more education about migrants, meaning, the migrant’s entire social conditions, cultural aspects, migration-related ill-health, trauma-related ill-health. There is a large subject area that we really need to get better at in most education programs”* (psychologist)

## **Oral hygiene**

Only one participant in Group one commented on the issue and considered that excessive oral hygiene was associated with signs of torture. The remaining participants had no knowledge of how oral hygiene can be seen as a result of being tortured.

On questions about exaggeration/neglect of oral hygiene, we received varying answers from Group two. One interview group considered that they only see a lack of oral hygiene in their patients, whereupon they put no thought on whether it can be a clinical sign of torture. Two interview groups made the connection that oral hygiene can be affected if a previous trauma e.g. if you feel shame, it can be an excessive cleaning. One interview group couldn’t answer whether the grade of oral hygiene can be seen as a clinical sign of past trauma.

*“Many suffer from tooth sensitivity because they have brushed forcefully, just like other abused patients”* (dentist)

*“The ability to work in the mouth with their own toothbrush or an inability to do so”* (dental hygienist)

## **Problems today**

The plurality of Group one (4 out of 6 participants) considered the economy a major problem, they claimed that the patients themselves could not afford treatment and the National Board of Health and Welfare does not pay. One participant explained that if a patient receives grants for dental care, only the cheapest rehabilitation is reimbursed, not the best. Three out of six



participants considered that competence in the process and treatment of tortured patients is deficient in dental professionals, therefore patients do not receive the care required. Non-help/-care is also due to the fact that the caregivers do not dare to ask about previously experienced trauma such as torture according to three participants. Lack of time is a problem that one participant raised, this participant claimed that health care is not structured to help patients when the time pressure on caregivers is too high. One participant considered that the particular dental care situation is problematic for tortured patients due to the mouthguard and a strong lamp which makes it more difficult for the patient to feel confident.

Participants in Group two generally felt that contemporary problems in the subject of torture are limited in time and knowledge. One interview group considered that the lack of time leads to limited information from the patient and that it is impossible to help the patient group if torture injuries cannot be identified. Other interview groups claimed that they often experience problems in patient care that require an interpreter. Another interview group considered that it is problematic that one cannot refer asylum seekers to a specialist, the same interview group claimed that greater financial resources are needed for this patient group because the need for treatment is much greater and thus costs more money. One interview group did not answer the question.

*“Limited time leads to limited information from the patients because you do not have time to talk and get the information you need to discover that there is an injury, what type of injury, etc.” (dentist)*

*“In cases where we think that the patient is in need of a prosthetic, the city of Stockholm social service provides them with the cheapest one. We try to urge that the patient instead should get the best prosthetic since he or she has the right to full medical rehabilitation if identified as a victim of torture, according to the torture convention.” (psychologist)*



## Discussion

The purpose of our study was to investigate how much knowledge dental professionals has to detect and provide help to asylum seekers or immigrants with a refugee background who have been victims of torture. The main findings were that more knowledge and education are considered necessary in both dental care but also in the general health care. For example, knowledge of what torture means, but also the importance of the oral cavity in a torture situation.

Distinct directives are also needed regarding the management, treatment and further referral of these patients. Our study shows that both groups believe that there are three main problems in the current situation for this patient group: Lack of finances, competence regarding treatment and time.

### **Method discussion**

We believe that some of the strengths in our study are the respondents we got access to due to our supervisor's broad network. Respondents with years of broad competence and specialized knowledge of individuals who have been victims of torture. In our opinion, this led to a high relevance of our study results.

Another strength of our study is that the dental professionals who participated represent different areas of admission within Stockholm. They work both in the suburbs as well as in the city center. The participants have had different working experience, time in the profession, age and background. We also have a spread between dentists and dental hygienists, which has contributed to broaden our study and validate our results.

One weakness with our study is the number of participants, a total of 22 participants. In order to gain a greater understanding of the subject and more thoroughly answer our original question, the study needs to be much more comprehensive and preferably involve several parts of Sweden. Also, we chose to compare two groups because it gives a clearer and more understandable result for an interview study. Of course, it would be that both groups consisted solely of dentists and dental hygienists, but this was



unfortunately not possible as there is no specific instance where dental personnel treat torture-induced injuries. This problem developed into a strength as Group one consisted of other professions who for many years only worked with people who have been subjected to torture or other severe trauma and thus possess a great knowledge in the given subject.

Another weakness is the lack of previous studies on this topic, it was very difficult to find articles and literature that dealt with the subject of "torture and dental care". Our sources have therefore, for the most part, become reports and conventions that describes the problems of persons who have been subjected to torture and we have not been able to compare our results with so many similar ones.

### **Results discussion**

The knowledge among dental professionals is considered inadequate by both groups. Nevertheless, one thing we noticed is that once the participants in Group two started debate with each other during the interviews, the participants knew much more than they thought.

The participants could rephrase thoughts of atypical injuries, signs of torture both in behavior but also clinical signs. They had clues as to what these patients needed and where to refer them. Still the idea that it could be a trauma due to torture did not come to mind and once asked they couldn't answer nor associate that these patients' torture trauma could be managed in the same way. We believed this is due to an uncertainty that is caused by the lack of basic education in torture and the lack of knowledge of how commonly it occurs. Furthermore, it can also be a cause of the "protective bubble" in which we in Sweden live. We are far from a reality where torture exists. Any atypical damage or signs may simply be seen as a cause of something else. The idea of torture occurs far-fetched.

Belike more victims of torture could be identified if caregivers had in mind that a trauma injury may be caused by torture. The lack of education leads to lack of knowledge and thus possibly a fear of treating these patients.



Probably one could significantly improve the knowledge among the dental profession with simple means and a few targeted efforts. We believe that it is of the utmost importance that the Swedish healthcare system discuss this patient group. Furthermore, the importance of clear guidelines from municipalities and county councils regarding the management and handling of suspected victims of torture is crucial.

It should not be inconceivable that an injury or scar after an old injury may have arisen in connection with torture or torture-like methods. And if one discovers this, as a dentist or other dental professional, one should have the courage and knowledge to proceed with an investigation and know how to proceed with the treatment and rehabilitation of the injury, trauma and information that has emerged.

It is widely known that the oral cavity is of great importance for a person's well-being. In our study, Group one debated about how physical symptoms after torture can manifest in a patient. Functionally not being able to eat due to pain or lack of teeth which in a broader perspective can lead to underweight or malnutrition. Socially, not daring to smile or eat together with others may lead to a lower self-esteem, affect the daily social life, work opportunities or chances to meet a partner. It is also important to elucidate how a patient's general condition can affect ability or willingness to cope with a daily oral hygiene routine.

The majority of the participants in our study, desired for more knowledge and education on the subject of torture among dental professionals. It would have been seen as a great benefit to society if this were incorporated (either as a part of the undergraduate education or as a compulsory continuing education at workplaces). Our study also shows that few participants knew how common it is that people are subjected to torture. As knowledge becomes broader, people who have been subjected to torture receive better and possible faster care and rehabilitation (physical and mental) as torture injuries can be seen as a possible diagnosis /differential diagnosis earlier in the investigation.

Based on dental professionals, our results are of great importance through increased awareness in this patient group in general.



Clinical applications of our results may be increased knowledge of clinical symptoms and signs of torture injuries. Signs in a patient's behavior that may reinforce a suspicion that the person has been subjected to torture, suggestions for referral these patients and suggestions for improvement measures within the specified subject. Clinical applications may, at a secondary stage and if further studies are done, be to facilitate dental professionals to apply adequate ways to investigate, manage and treat this patient group. It would be desirable to implement multidisciplinary treatment for these patients, to establish preventive dental protocols and promote oral health in patient.

### **Our results in comparison to other research**

In relation to previous research on the subject, in our interviews it becomes clear that few of the participants thought about the actual treatment situation from a traumatized patient's point of view. In Group one, only one participant mentioned a problem with the treatment situation. Other studies show that several aspects of the dental visit resemble the torture situation (6, 12, 15, 29). As dentists, we use many sharp instruments made of metal that can have strong similarities to torture tools. Persons who have been victims of torture using water, for example waterboarding, can react strongly to the water coming into the oral cavity during treatment. The light of the lamp directed toward the face can recreate memories of interrogation and thus provoke loss of control. With knowledge of this, one can easily understand that torture victims can experience some anxiety through dental visits as it can trigger previous traumatic experiences (6). Since none in Group two reflected that the treatment situation could be a problem, we believe this illuminates the lack of knowledge within the dental profession regarding both torture methods and the psychological trauma that exists after such abuse. Although several participants have mentioned that dental fear can be a symptom or sign of past trauma or torture, no one mentioned the treatment situation as a problem or risk of re-traumatization.

However, the thoughts surrounding dental fear as a sign of past trauma is an important observation. In the study of Hoyvik et al (6) they came to several conclusions one of which is Quote: *“The results suggest that refugees with*



*dental treatment experience after their escape are more prone to dental anxiety if they have been exposed to torture against their teeth (6).*

Despite differences between the groups, they both concurred to that economical finances were a problem. This is somewhat intriguing when, according to the Geneva convention article 23 (25) which Sweden has signed, it is stated that, Quote:” *The contracting states shall accord to refugees lawfully staying in their territory the same treatment with respect to public relief and assistance as is accorded to their nationals*” (25). Despite this, both groups concurred that greater financial resources are required, as the need for treatment within this patient group is much greater than among the normal population. They also agreed that expertise in management and treatment of these patients is deficient among dental professionals and that lack of time is a concern especially in regard to the patients. This corresponds well with the results of previous studies of Singh et al (12) and Lamb et al (13).

According to a study by Bolling P. et al 1978 (18) they found that it is very difficult to find uniform signs of torture. This is consistent with the results of our study. Participants had great difficulties reaching a consensus of what physical symptoms and atypical injuries that may be found in the oral cavity post torture. In Group two, the broad subject of “trauma” was mentioned several times and various suggestions of clinical signs were given. Group one responds more generally and with a larger patient perspective, however, less direct signs of torture.

In the study of Bolling P. et al (18) They came to the conclusion that some of the reasons it’s so difficult to find uniform signs may be that the practitioner does not know the oral status before the torture has occurred but also that the results from the investigation were due to the length of time between the torture took place and the examination was conducted whereby some degree of healing has occurred (18).

Yet, we could find some consensus between the two groups regarding what kind of physical symptoms and atypical injuries that can be found in the oral cavity after torture. These are as follows: Missing teeth, root debris, poor dental status, bruxism or wear after grinding, scarring in the mucosa and



dental fear. We could find some similarities between these results and the study by Sara A. et al (17) where clinical forensic examinations were made of alleged torture victims.

In this study (17) they also say that in an everyday situation at the dental clinic we may not have access to that background information and that can affect how we see possible clinical signs. Alternatively, we may completely miss the clinical signs or diagnose them as something else (17). The study also states that as a dentist, you can pay extra attention to e.g. discolored teeth and hypersensitive teeth which may be symptoms of ground or damaged teeth (17).

Another study by Bimer LP 2012 (16) describes what types of oral problems and diseases patients who have been tortured exhibit. For example, fractures of teeth and fillings, caries, periodontitis, pulpitis or apical periodontitis, orofacial pain and jaw problems due to bruxism (16). Which also correspond to the results of what the participants in our study believed may be signs of torture or previous trauma.

In order to understand what a victim of torture has been subjected to, it is necessary to have knowledge of which torture methods are used most frequently, but also what the very definition of torture entails.

The fact that caregivers are not aware of the definition of torture can lead to sources of error, both in this study, but also in a clinical situation as it can affect the caregiver's continued treatment and possible referral or contact with various instances.

Future research may conceivably be investing or constructing methods and approaches that facilitate dental care and other treatment for this patient group. Possible results can be in the form of an instruction sheet, which explains in detail all the steps, from an initial investigation, possible instances to refer to, and how, as a dental professional, these persons should be managed to perform dental care in an adequate and careful manner.



## Conclusion

Results from our study shows that there is a need for an increased awareness of injuries and signs of torture in the oral cavity among dental professionals nevertheless within the general health staff to.

Increased knowledge will hopefully raise the courage to proceed with an investigation or have an open discussion with the patient and see how best to proceed with the treatment and rehabilitation of the injury, trauma and information that has emerged. We believe that the practical benefit of our study is primarily an increased awareness among dentists about people who have been victims of torture.



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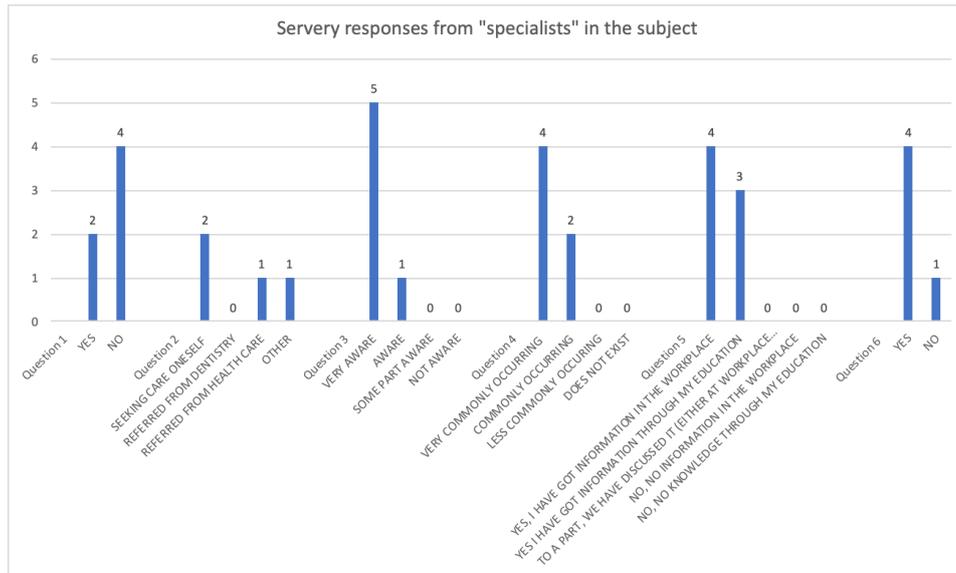
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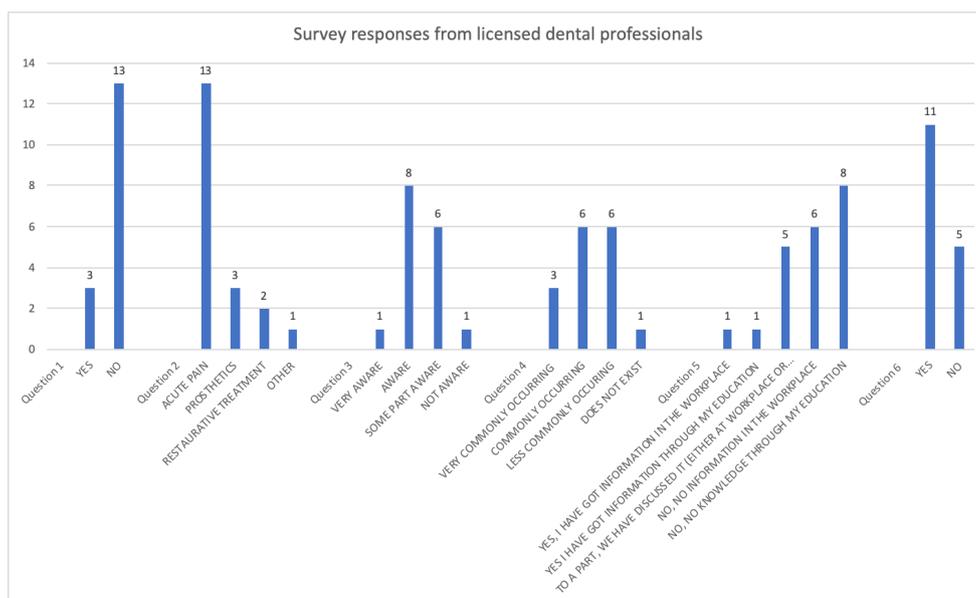
**Table 1.** Survey questions Group one



**Table 1.** Questions: 1. Do you, at a daily basis, meet asylum seekers or patients with a refugee background? 2. In what way do you find asylum-seeking patients or patients with a refugee background are mainly seeking help? 3. How aware are you of what torture means? 4. How common is torture against the oral cavity/face? 5. Are injuries caused by torture, something you have come to know about in your education or workplace? 6. Is torture a reason for getting asylum?



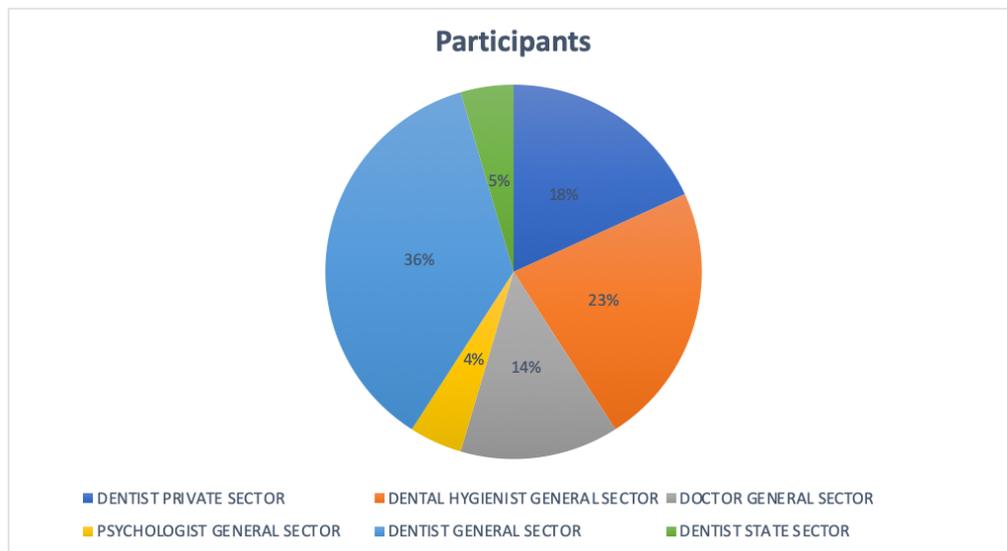
**Table 2.** Survey questions Group two



**Table 2.** Questions: 1. Do you, at a daily basis, meet asylum seekers or patients with a refugee background? 2 What do you find that asylum-seeking patients or patients with a refugee background are mainly seeking help for? 3. How aware are you of what torture means? 4. How common is torture against the oral cavity/face? 5. Are injuries caused by torture, something you have come to know about in your education or workplace? 6. Is torture a reason for getting asylum?



**Fig. 1. Participant professions**





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Handledarintyg examensarbete

**Qualitative exploration of dental professionals'  
knowledge to detect torture among asylum seekers or  
immigrants with a refugee background.**

Evelina Ekman

Karoline Willix

Som handledare för detta projekt tillstyrker jag att studentens eller studenterna ska examineras eftersom dennes/deras prestation och insats i projektet och att den vetenskapliga rapporten är av tillräcklig omfattning och kvalitet för examination.

20-05-26

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Lena Karlsson

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