Oral piercings and their complications – how confident are we as a profession?

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Key points

- Educates the reader about the prevalence of oral piercings and their complications.
- Discusses the types of complications associated with oral piercings.
- Updates the reader about the legislation and legal requirements regarding oral piercings.
- Provides an example of a patient information leaflet that can be used when discussing oral piercing complications with patients.

Introduction The prevalence of oral piercings in the UK is increasing. Consequently, the dental profession is encountering an increasing number of complications associated with piercings. Providing patient preventative advice regarding piercing complications is important, however the level of advice offered by UK dentists is currently unknown. **Aims** The aim of this survey was to establish the current knowledge, attitudes and behaviours of dentists regarding advice provided to patients with oral piercings. **Methods** A questionnaire was sent to 200 dentists across Wales with questions regarding perceived confidence in providing advice, type of advice provided, the sources dentists use to acquire knowledge and the perceived need for further professional information. **Results** Fifty-three dentists responded. Only 24.5% were very confident discussing piercing complications. The advice provided varied markedly, with the majority (73.6%) reporting they had acquired knowledge through experience alone. Only one dentist reported providing written information and 83% responded that they would like to have access to printed information directed at patients. **Conclusions** The results of this survey suggest that dental professionals are not fully confident discussing risks and preventative advice with patients. To address this, patient information leaflets have been developed to encourage dentists to discuss complications associated with oral piercings with patients.

Introduction

Body modification, the purposeful alteration of normal human anatomy to achieve a desired appearance, is a popular practice that has led to a rise in the prevalence of oral piercings. In 1992, the first report relating to oral piercing appeared in the dental literature titled 'Tongue piercing: a new fad in body art'.[1] However, rather than a fad, oral piercings have become increasingly popular. Common sites for oral piercings include the tongue (Fig. 1) and lips (Fig. 2) however piercing of alternative anatomical sites such as the cheeks (Figs 3 and 4) and frenulae (Fig. 5), is becoming more prevalent.[2,3] Oral piercings have been a recent topic of debate in the Welsh Government, and in May 2017 a new Public Health (Wales) Bill was accepted by the National Assembly for Wales to ban all intimate piercing, which includes tongue piercing, before the age of 18. To establish the current attitudes of the dental profession towards oral piercings, a national survey was conducted among General Dental Practitioners (GDPs) across Wales. Furthermore, a literature review was conducted to establish the current global trends in oral piercings and discuss the potential complications resulting from such body modifications.

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Fig. 1 Midline tongue piercing with stainless steel tongue bar (barbell)

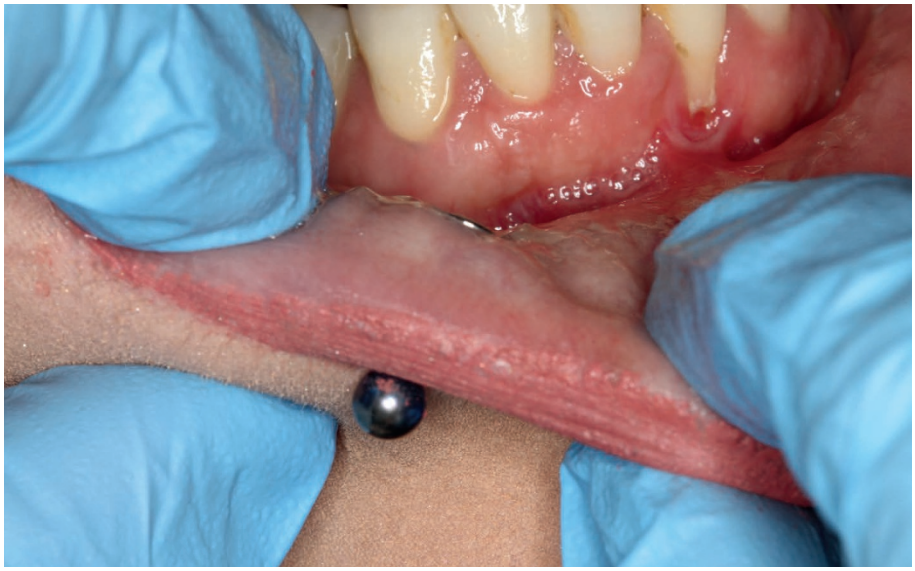

Fig. 2 Lip piercing (also termed labret) with a titanium lip bar

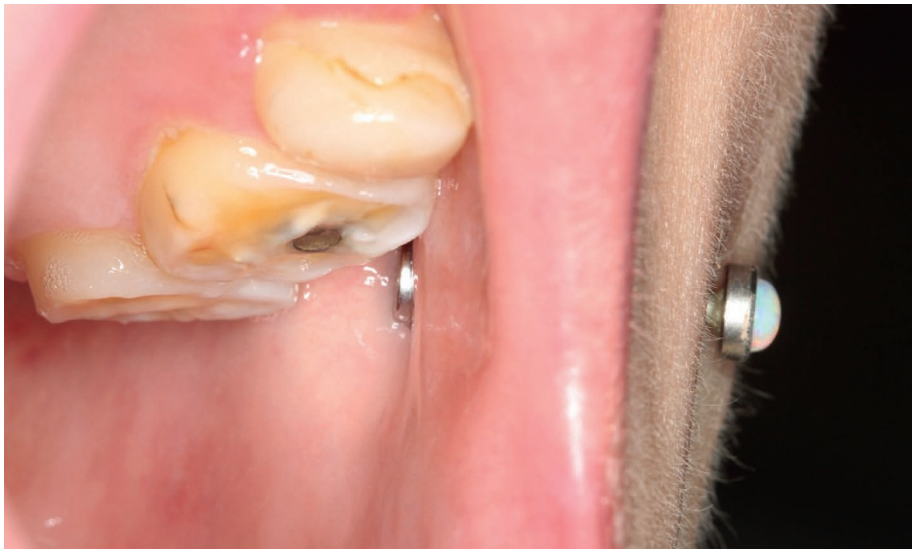

Fig. 3 Cheek piercing viewed intra-orally with titanium bar in situ

Fig. 4 Cheek piercing viewed extra-orally

Legislation

Following the death of a Sheffield teenager from septicaemia caused by a lip piercing in 2002, the risks of body piercing were discussed in the House of Commons.[4,5] As a result, a voluntary code of practice was implemented for piercers which included guidance regarding the practice of body piercing, specific recommendations for hygienic procedures, checking medical history before piercing and the prevention of piercing individuals below 16 years of age unless parental consent is given. This code of practice is summarised in the document 'Advice and Safe Practice for Body Piercing – Guidance for Operators' produced by the British Body Piercing Association.[6] It is unknown how many piercers have adopted this code of practice and therefore compliance can vary between establishments.

Currently the legislation for licensing and registration of piercing establishments varies between local authorities. In England and Wales, local authorities have the power to apply the Health and Safety at Work Act 1974 to impose infection control and safety requirements.[7] Furthermore, there are specifications stated in the Local Government (Miscellaneous Provisions) Act 1982 and the Local Government Act 2003 for local authorities in England and Wales to require the registration of individuals providing body piercings.[8] The Local Government Act 2003 also stipulates standards of cross infection control. With the aim of preventing transmission of infectious diseases, the Health and Safety Executive have produced the SR12 publication to help piercers comply with the Control of Substances Hazardous to Health Regulations (COSHH) 2002.[9] Local authorities can choose whether to adopt and enforce these guidelines in addition to their own byelaws; therefore piercing standards vary across the UK.

While many piercing establishments enforce their own age restrictions, there are currently no laws restricting piercings for minors in England. Many local authorities have developed licensing frameworks that make it possible to state a minimum age; however there are inconsistencies across the UK. Some local councils prohibit cosmetic piercing under 16 years of age whereas some state 18 years of age.[10–12] In Scotland, individuals under 16 are required to have parental consent before undergoing any piercing. In Northern Ireland, the piercing of nipples and genitalia of children

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under the age of 16 is regarded as indecent assault under sexual offences legislation, and can lead to prosecution.

The Welsh Government has raised serious concerns about the medical implications associated with intimate piercings, and the potential vulnerability of young people receiving such piercings. In 2015, the Welsh Government introduced a Public Health (Wales) Bill which included a clause to ban all intimate piercing before the age of 18. The Welsh Dental Committee (WDC) responded to the consultation and strongly suggested that intimate piercing should include tongue piercing, and as a result tongue piercing was added to the list of intimate piercings. The Public Health (Wales) Bill was accepted by the National Assembly for Wales in May 2017 and the age for intimate piercing, including tongue piercing, has been raised to 18 years old. This is now in keeping with similar legislation such as tattooing of minors and female genital mutilation. The age increase will help to avoid circumstances where young people are placed in potentially vulnerable situations, particularly where there is risk to the developing body.[13]

Complications

Unsurprisingly, oral and peri-oral piercings are associated with numerous complications. The UK incidence of complications associated with oral piercings is reported by Bone *et al.* (2008).[2] In 16–24-year-olds, 50.1% who had tongue piercings and 20.5% who had lip piercings experienced complications. Tongue piercing was the second most common body piercing resulting in complications (following the navel). This finding corroborates other studies which state that complications are most prevalent with tongue piercings, followed by lip, cheek and gingivae.[3,14,15]

It is currently unknown how many patients with oral piercings attend for emergency treatment in the UK. In 2006, a UK-based survey of 126 piercees reported that 99% had problems with their tongue piercing, 7% of which required healthcare following the piercing.[16] A US study of 100 emergency departments has reported an estimated annual presentation rate of 3,494 injuries associated with oral piercings.[14] In this study, patients aged 14 to 22 years old accounted for 73% of the emergency visits.

Several investigations have aimed to identify the prevalence of the different complications associated with oral piercings (Table 1). Commonly reported acute complications include pain, swelling, haemorrhage, infection and masticatory and speech impairment. Less frequently reported immediate complications include haematoma, delayed healing, puncture wound, laceration, dental trauma, allergy, dysphagia and hypersalivation.[14,15,17–21] Commonly reported chronic complications include pain, infection, swelling, bleeding, tissue hyperplasia, soft tissue trauma, gingival recession, dental trauma, dental pain, speech impairment, taste disturbances and ingestion of piercing. Less frequently reported chronic complications include masticatory/eating impairment, gingivitis, plaque accumulation (Fig. 5), hypersalivation, galvanic reaction, tooth migration and dysphagia.[14,16–21] Complications have been shown to be more common in patients who habitually play with their piercing.[15]

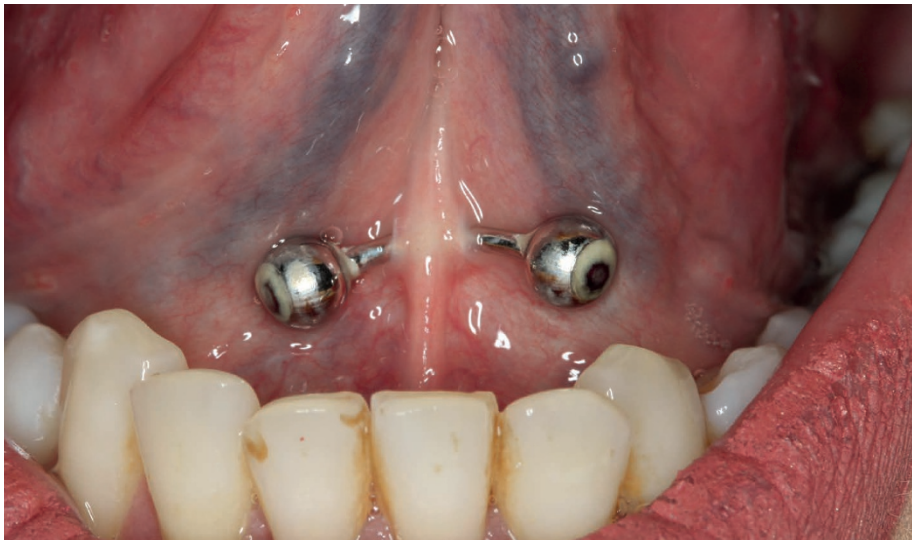

Fig. 5 Piercing of the lingual frenulum with stainless steel bar in place. Note the accumulation of plaque on the ball ends of the piercing

Several rare and sometimes serious oral piercing complications have been reported (Table 2).[22] Prior to the enforcement of COSHH regulations, it was hypothesised that oral piercings could increase the risk of transmission of blood borne viruses such as HIV and hepatitis B and C.[23]

It is essential that all professions who encounter oral piercings are properly informed and able to provide advice regarding oral piercing complications. The level of advice offered by UK dental professionals regarding oral piercings is currently unknown. There is no current consensus among dental professionals regarding the type of complications that should be discussed with patients. There many easily available advice leaflets developed for the piercing industry, however similar documentation does not exist for the dental profession. To investigate the current knowledge, attitudes and behaviours of UK dentists regarding advice provided to patients with oral piercings, a survey was distributed to GDPs in Wales. The results are discussed, and advice is provided for dental professionals treating patients with oral piercings.

Methodology

A multiple-choice questionnaire was developed with the aim of documenting dentists' perceived confidence in discussing oral piercings, information provided to patients regarding complications, methods used to provide patients with information, sources dentists are using to acquire their knowledge and whether further support or information is required. An example of the questionnaire is presented in Figure 6.

Inclusion criteria consisted of GDPs working in primary care in the Betsi Cadwaladr University Health Board (North Wales) and the Bro Taf Health Authority (covering Cardiff, Merthyr Tydfil, Rhondda Cynon Taff and the Vale of Glamorgan in South Wales). The questionnaire was sent via electronic mail using Microsoft Office Software.

Results

Two hundred GDPs were approached to complete the questionnaire with a total of 53 GDPs (26.5%) returning completed surveys. Results were collated and analysed using Microsoft Excel.

Table 1 Commonly reported complications of oral and peri-oral piercings in the dental and medical literature (cont. on p891)

Study	Number of patients	Number of piercings	Frequency of oral piercing complications			
			Acute	%	Chronic	%
De Moor *et al.* 2005[17] Patient questionnaire + examination	50	55 (47 tongue; 8 lip)	Swelling	22	Speech impairment	14
			Pain	14	Eating impairment	10
			Haematoma	4	Soft tissue trauma	2
			Infection	2		
			Delayed healing	2		
			Haemorrhage	2		
Levin *et al.* 2005[19] Patient questionnaire + examination	79	79	Swelling	52.9	Gingival recession	26.6
			Haemorrhage	45.7	Dental trauma	13.9
					Bleeding	13.9
					Infection	11.4
					Gingivitis	5.1
Chadwick *et al.* 2005[18] Dentist questionnaire	227	–	Not reported		Dental trauma	100
					Gingival recession	42.6
					Swelling	35.8
					Infection	34.7
					Speech impairment	30.6
					Pain	23.8
					Plaque deposits	22.7
					Tissue hyperplasia	18.2
					Bleeding	9
					Tooth migration	2.8
					Hypersalivation	2.3
					Dysphagia	2.3
					Galvanic reaction	2.3
					Ingest piercing	1.1
Stead *et al.* 2006[16] Patient questionnaire	126	126 (tongue)	Swelling	90	Ingest piercing	29
			Pain	69	Dental trauma	28
			Eating impairment	63	Plaque deposits	26
			Speech impairment	43	Speech impairment	9
			Haemorrhage	42	Swelling	7
			Ingest piercing	5	Eating impairment	2
			Dental trauma	4	Pain	1
			Plaque deposits	4	Bleeding	1
Vieira *et al.* 2010[21] Patient questionnaire + examination	39	42 (37 tongue; 5 lip)	Haemorrhage	69	Pain	92.2
			Pain	52.4	Soft tissue trauma	64.3
			Faint	4.8	Swelling	61.9
					Infection	38.1
					Dental pain	33.3
					Tissue hyperplasia	31
					Bleeding	28.6
					Gingival recession	4.8
					Dental trauma	2.4

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Table 1 Commonly reported complications of oral and peri-oral piercings in the dental and medical literature (cont. from p890)

Study	Number of patients	Number of piercings	Frequency of oral piercing complications			
			Acute	%	Chronic	%
Hickey *et al.* 2010[15] Patient questionnaire + examination	201	201 (106 tongue; 88 lip; 7 cheek)	Eating impairment	78.3	Gingival recession	14.8
			Speech impairment	67	Taste disturbance	12.3
			Swelling	51.7	Dental trauma	7
			Dysphagia	28.4		
			Hypersalivation	20.4		
Gill *et al.* 2012[14] Retrospective epidemiological study	24,459	24,459 (10,341 tongue; 11,197 lip; 2,921 other)	Infection	42	Not reported	
			Puncture wound	29		
			Laceration	10		
			Haemorrhage	7		
			Dental trauma	7		
			Haematoma	1		
			Allergy	1		
Plessas *et al.* 2012[22] Patient questionnaire + examination	110	161 (51 tongue; 110 lip)	Pain	57.7	Ingest piercing	48
			Eating impairment	49	Gingival recession	39.7
			Speech impairment	33.5	Bleeding	33
			Haemorrhage	4.3	Dental trauma	32.3
					Plaque deposits	21
					Dental pain	13
					Hypersalivation	9.3
					Taste disturbance	6.8
					Galvanic reaction	3

GDP confidence

When asked how respondents felt about discussing oral piercing advice with patients, 24.5% (N = 13) replied very confident, 49% (N = 26) were moderately confident and 26.5% (N = 14) not confident (Fig. 7). Information provided to patients has predominantly been acquired from experience (N = 39, 73.6%), and to a lesser extent from dental training (N = 9, 17.0%). As part of their Continuing Professional Development (CPD), some GDPs have also read published literature on the topic (N = 15, 28.3%) and one had researched their local authority publications.

Complications

Warnings of piercing complications are given by 50 (94.3%) of the respondents, all of whom given verbal advice only. The three GDPs (5.7%) who do not offer any information had also answered that they were not confident in discussing advice with patients.

There were 15 complications described in the survey, illustrated by Figure 8. None of the respondents offered additional examples. Understandably the most common complications discussed were trauma to teeth (N = 46), gingival recession (64.1%, N = 34), and dentine hypersensitivity (22.6%, N = 12). Aside from dental-related trauma, GDPs tend to warn of acute complications such as infection (52.8%, N = 28), inflammation (37.7%, N = 20), and pain (28.3%, N = 15). Chronic complications, such as scarring/ tissue hyperplasia (16.9%, N = 9), are described less often.

When complications arise, 19 GDPs (35.8%) would advise on where to seek treatment. In the first instance, the majority (24.5%, N = 13) recommend seeking treatment from a dentist. Secondary to this, patients are directed to either return to their piercer (13.2%, N = 7), attend with their general medical practitioner (11.3%, N = 6), or seek attention from their local emergency department (13.2%, N = 7).

Piercing advice

A large proportion of GDPs offered additional guidance (94.3%, N = 50), demonstrated in Figure 9. The 3 GDPs (5.7%) who lacked confidence acknowledged that they do not discuss oral piercings with patients.

Advice is largely based on minimising the risk of trauma to intra-oral tissues, hence GDPs often advocate removing piercings (45.2%, N = 24). Two respondents who offered 'Other' information recommend replacing metallic components of piercings with plastic alternatives, particularly if there is 'evidence of damage to the lower anterior teeth.' A quarter of GDPs advise that patients attend for regular dental examinations to monitor potential problems (24.5%, N = 13). Where piercings are kept *in situ,* patients are discouraged from regularly 'playing' with or touching/rotating the piercing (35.8%, N = 19). Hygiene guidance is provided by 13 (24.5%) respondents.

Again, the preferred method of delivering advice is verbally (N = 44, 83.0%). One respondent (1.9%) stated that they offer written information, which is produced in-house at the practice. A copy of this written advice was not offered on return of the survey. A number (N = 8, 15.1%) of GDPs did not specify how their advice is delivered.

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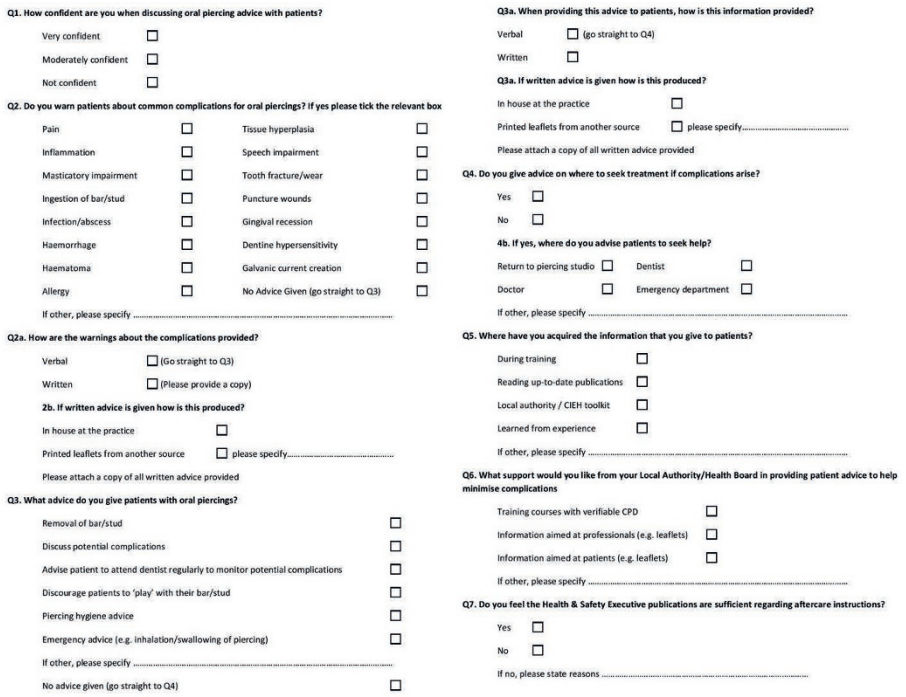
Table 2 Rare complications of oral and peri-oral piercings[22]

Complication	Number of cases reports
Periodontitis	11
Endocarditis	8
Hypotensive collapse	1
Loss of insertion needle	1
Ludwig's angina	1
Fatal herpes simplex hepatitis	1
Thrombophlebitis of sigmoid sinus	1
Atypical trigeminal neuralgia	1
Bifid tongue	1
Airway obstruction	1
Cerebral abscess	1
Tetanus infection	1



Q1. How confident are you when discussing oral piercing advice with patients?
Very confident ☐
Moderately confident ☐
Not confident ☐

Q2. Do you warn patients about common complications for oral piercings? If yes please tick the relevant box
Pain ☐ Tissue hyperplasia ☐
Inflammation ☐ Speech impairment ☐
Masticatory impairment ☐ Tooth fracture/wear ☐
Ingestion of bar/stud ☐ Puncture wounds ☐
Infection/abscess ☐ Gingival recession ☐
Haemorrhage ☐ Dentine hypersensitivity ☐
Haematoma ☐ Galvanic current creation ☐
Allergy ☐ No Advice Given (go straight to Q3) ☐
If other, please specify .....

Q2a. How are the warnings about the complications provided?
Verbal ☐ (Go straight to Q3)
Written ☐ (Please provide a copy)
2b. If written advice is given how is this produced?
In house at the practice ☐
Printed leaflets from another source ☐ please specify.....
Please attach a copy of all written advice provided

Q3. What advice do you give patients with oral piercings?
Removal of bar/stud ☐
Discuss potential complications ☐
Advise patient to attend dentist regularly to monitor potential complications ☐
Discourage patients to 'play' with their bar/stud ☐
Piercing hygiene advice ☐
Emergency advice (e.g. inhalation/swallowing of piercing) ☐
If other, please specify .....
No advice given (go straight to Q4) ☐

Q3a. When providing this advice to patients, how is this information provided?
Verbal ☐ (go straight to Q4)
Written ☐
Q3a. If written advice is given how is this produced?
In house at the practice ☐
Printed leaflets from another source ☐ please specify.....
Please attach a copy of all written advice provided

Q4. Do you give advice on where to seek treatment if complications arise?
Yes ☐
No ☐
4b. If yes, where do you advise patients to seek help?
Return to piercing studio ☐ Dentist ☐
Doctor ☐ Emergency department ☐
If other, please specify .....

Q5. Where have you acquired the information that you give to patients?
During training ☐
Reading up-to-date publications ☐
Local authority / CIEH toolkit ☐
Learned from experience ☐
If other, please specify .....

Q6. What support would you like from your Local Authority/Health Board in providing patient advice to help minimise complications
Training courses with verifiable CPD ☐
Information aimed at professionals (e.g. leaflets) ☐
Information aimed at patients (e.g. leaflets) ☐
If other, please specify .....

Q7. Do you feel the Health & Safety Executive publications are sufficient regarding aftercare instructions?
Yes ☐
No ☐
If no, please state reasons .....

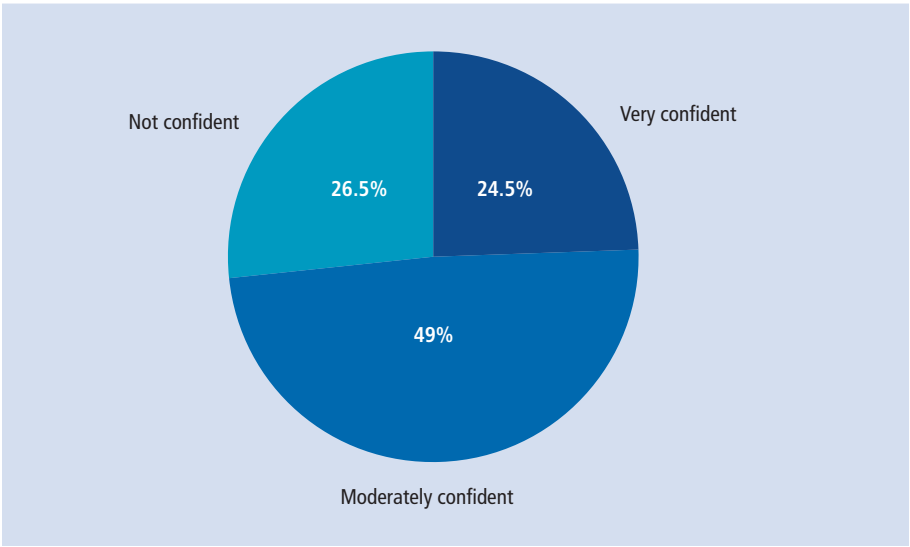
Fig. 6 Example of questionnaire sent to GDPs

GDP support

GDPs were asked what advice they would like to receive in relation to managing oral piercings in dental practice, summarised in Figure 10. Largely, respondents preferred printed information directed towards patients (N = 44, 83.0%). Just over half of GDPs indicated that they would like printed information aimed at professionals (N = 28, 52.8%), and 18 (34.0%) would like training courses that provide verifiable CPD.

Lastly, GDPs were asked their opinion of existing publications relating to oral piercings. Of the responses, 20 (37.7%) felt that available publications are sufficient; however, observations were made that materials are not readily accessible. One individual remarked that they 'could not find information on where to seek help if serious infection occurred.' A total of 13 (24.5%) respondents felt that current publications are insufficient, with two commenting that they hadn't seen piercing-related documents before this survey. Two GDPs specified that patient information is inadequate. A proportion of GDPs were unfamiliar with any publications (15.1%, N = 8).

Fig. 7 GDP confidence in delivering orofacial piercing education to patients



Discussion

Prevalence

The increasing incidence of oral piercings appears to be a world-wide phenomenon. A 2012 systematic review studied the prevalence of oral piercings in young adults from the United Kingdom, Canada, Brazil, Spain, Israel, the United States of America, New Zealand, Germany and Finland. The results revealed that 5.2% of the 9,104 young adults had an oral piercing.[3] The trend for such piercings was higher in women (5.6%) than men (1.6%) (M:F = 3:11), with the most popular piercing being the tongue (5.6%) followed by lips (1.5%) and cheeks (0.1%). Oral piercings are most common in 16-30 year olds.[2,3] Alarmingly, several studies report oral piercings in individuals as young as 11-14 years of age.[3,14,17,24]

Bone *et al.* (2008)[2] published the only study that estimates the prevalence of body piercings in the United Kingdom. This survey of 10,503 adults found that 2.1% had a piercing of the lip or tongue. When looking specifically at 16–24-year-olds, 9.2% reported piercings of the lip and/or tongue. Females (2.5%) were more likely than males (1.5%) to opt for these types of piercings (M:F ratio 3:5). Most piercees received their piercing at a dedicated studio. Similar evidence suggests around 80% of piercings take place in piercing establishments.[25]

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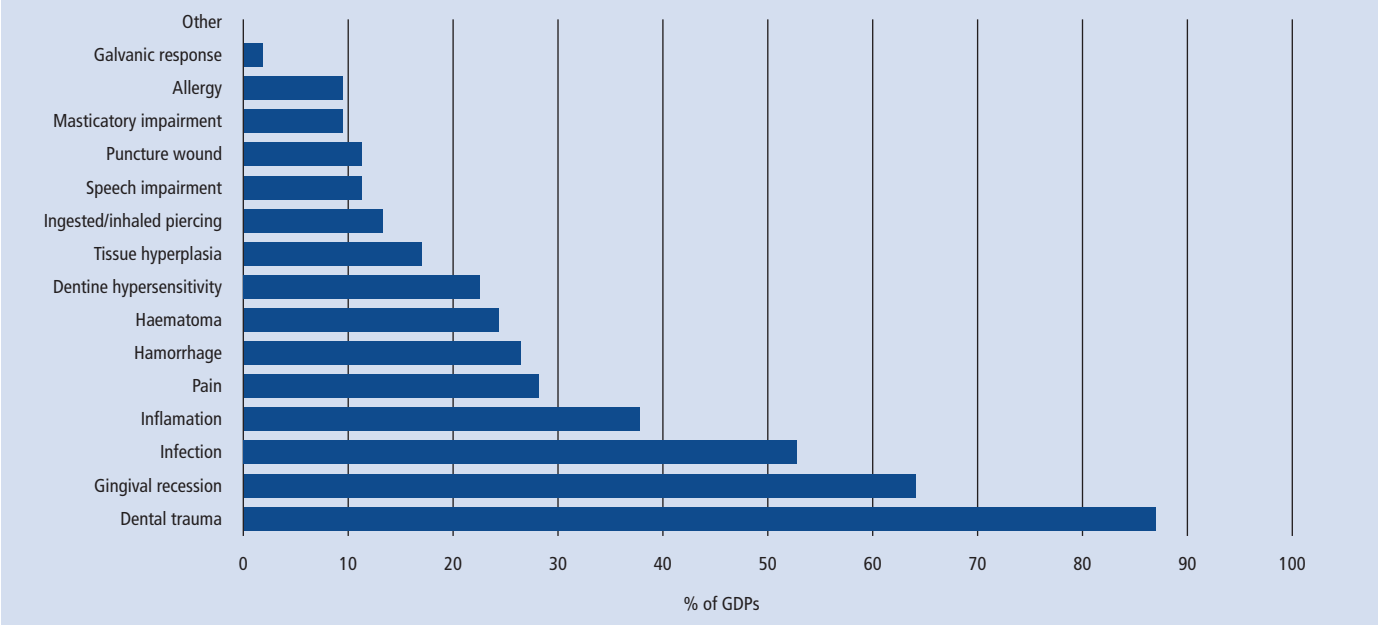
Fig. 8 Orofacial piercing complications described to patients by GDPs



A 2016 survey was conducted by the Oral Health Foundation, an independent UK oral health charity, to establish the current trends of oral piercings in the UK.[26] Of 214 respondents, tongue piercings were the most commonly reported (43%), followed by lip (33%). Additionally, other anatomical sites were described: frenulum (7%), cheek (3%) and sites such as gingival piercings. 13% of people with oral piercings had more than one intra-oral site pierced, highlighting their existing popularity among the UK population.

The increased prevalence of oral piercings has not gone unnoticed by the dental profession. A UK survey of 227 dentists in South Wales revealed that 99% of dentists had treated a patient with an oral piercing, over three-quarters (77.5%) had seen a patient for a complication caused by the piercing, and over half (52.9%) had treated an oral piercing complication.[18] The British Dental Association (BDA) released a position statement in 2009 which advises against oral piercings, and recommends that individuals with a piercing should regularly visit a dentist and self-monitor the piercing site for complications.[27] Although the prevalence of oral piercings is on the rise, the results from this survey suggest that the confidence and knowledge within the dental profession regarding oral piercings is not evolving with this trend. It is therefore felt by the authors that more should be done to educate the dental profession about oral piercings.

Fig. 9 Orofacial piercing advice given to patients by GDPs

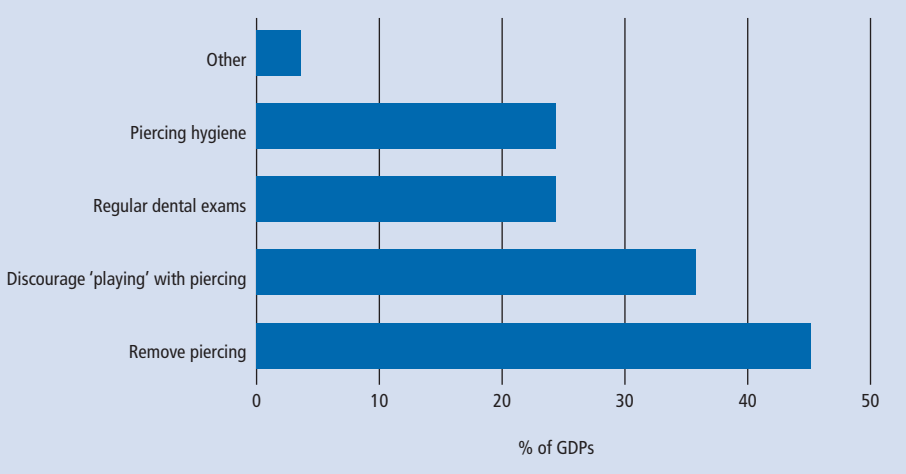
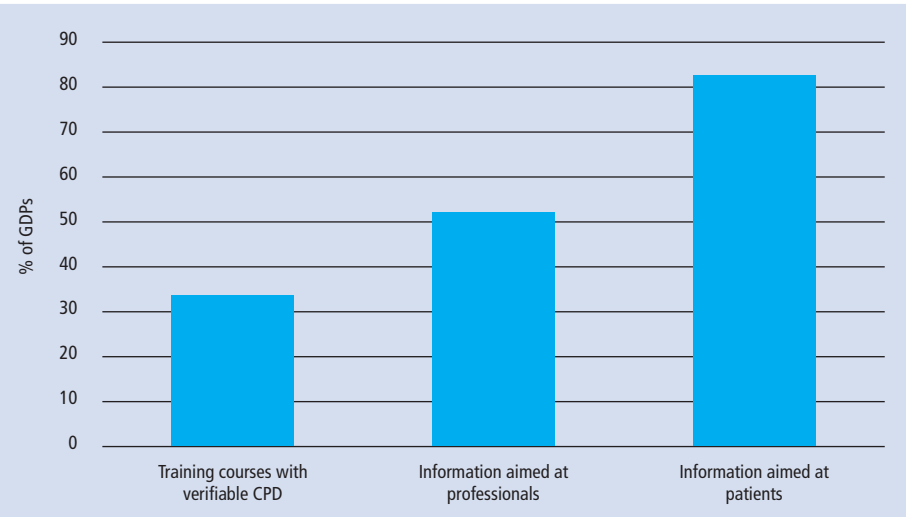


Fig. 10 Advice GDPs would like to receive in relation to the management of orofacial piercings



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Awareness

Piercee awareness of potential oral piercing complications varies. One study of 110 piercees reported 70.9% were unaware that oral piercings could affect their general health and 26.4% were unaware of potential dental complications.[24] Similar studies have reported that around 46–57.8% of piercees are unaware of the complications associated with oral piercings.[19,21]

Information should initially be provided by the establishment performing the piercing, both before consenting an individual and after performing the piercing. Encouragingly, a recent UK survey of piercers in South Wales reported 100% of piercers provided advice regarding oral piercing complications, with 57% giving both verbal and written warnings, 36% giving verbal only, and 7% providing written warnings only.[28] However, warnings given by piercing studios were diverse and no one piercer discussed all relevant complications. Interestingly 79% of piercers reported that further information aimed at both piercing professionals and piercees would be beneficial.

Confidence among the dental profession

It is evident from the results of this survey that only a quarter of GDPs are very confident in discussing with patients the nature of oral piercing complications and necessary preventative advice. In comparison, a similar UK survey conducted by Chadwick (2005)[18] reported that nearly 88% of dentists felt they could give adequate advice regarding possible complications to patients who were considering having an oral piercing. This suggests confidence among the profession has fallen, which may be a result of the increased prevalence and complexity of oral piercings.

Most respondents disclosed that their knowledge regarding oral piercings was learnt from experience, with only a small number of GDPs reporting they developed knowledge through formal training or reading dental literature. This suggests there is a lack of access to information and training available for dentists in the UK. Furthermore, a large proportion of respondents reported they would like information leaflets available for their patients. Many reported they would like to receive further information aimed at dentists and felt that there is a need for CPD courses for dental professionals. This highlights an area of dental education which may currently be insufficient for dental professionals to feel confident giving oral piercing advice and treating complications.

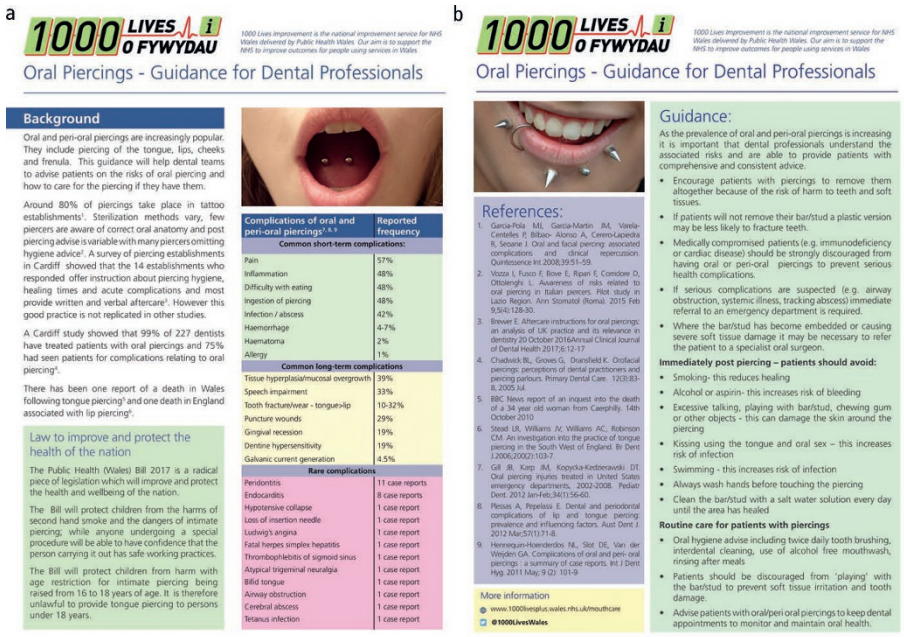

Fig. 11 Advice leaflet developed for dental professionals to discuss oral piercing complications with patients. Courtesy of 1000 Lives Service Improvement Dental Team

It was reassuring to discover that the majority of GDPs are providing patients with verbal advice regarding oral piercing complications. As one would expect, GDPs responded that they regularly discuss dental related complications. Other common acute and chronic complications appear to be discussed much less frequently. This concurs with the UK study by Chadwick (2005),[18] whereby tooth fracture and recession were the most commonly discussed complications between GDPs and patients.[18] It is apparent that in over ten years there has not been any development in the information provided by GDPs to patients regarding oral piercing complications. As a visit to a dental professional is an opportune moment for patients to receive oral health advice, it is felt by the authors that more needs to be done to empower dental professionals to discuss the range of complications associated with oral piercings.

Encouragingly, almost all GDPs reported the provision of preventative advice to avoid oral piercing complications for their patients. However, the advice regarding how to prevent complications and where complications should be treated varied among GDPs. It is currently unknown how frequently piercees in the UK seek medical or dental attention for oral piercing complications. Considering an estimated 2% of adults in the UK have an oral piercing, it is likely that a large proportion of this group of patients will require some level of medical or dental care at some point.[2] This therefore emphasises the importance of the provision of clear and comprehensive preventative advice for patients to reduce the likelihood of complications.

As GDPs feel that current publications are insufficient and have indicated that they would like further information available for patients and dental professionals, the authors of this article, together with 1000 Live Wales, have developed patient information leaflets which have been distributed to GDPs in Wales to enable them to discuss complications with patients and provide written advice (Fig. 13). It is important that all dental professionals possess the appropriate skills and knowledge to treat patients with oral piercings and are confident to provide the correct advice.

Limitations

As with all studies, there are certain limitations that need to be recognized in this survey. Firstly, the low response rate of 26.5% meant that a large proportion of dentists' experiences and opinions were not captured in the data which may have affected the results. It is possible that contacting dentists via email led to a poorer response rate than that which may have been achieved by using a printed version of the survey sent via post. It is also possible that due to the large number of surveys dentists receive, the GDPs targeted in this study may have experienced 'survey fatigue' which affected response rates. The variation in prevalence of oral piercings

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in the different Welsh regions targeted for this survey is unknown. It is therefore possible that the GDPs who responded may see a low number of patients with oral piercings which may explain the low confidence and experience treating piercing related complications.

Conclusion

Oral piercings are associated with numerous complications, and it is possible that the incidence of complications may increase as the prevalence of oral piercings rises in the UK population. It is important that dental professionals can provide patients with appropriate advice and manage oral piercing complications that may arise. The results of this survey suggest that dental professionals are not entirely confident discussing risks and preventative advice with patients. To address this issue, patient information leaflets have been developed to encourage dentists to discuss complications associated with oral piercings with patients.

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