Dental care in modern art (1914–2014)

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In brief

Provides examples of how twentieth century artists depicted 'dentists in action'.

Provides understanding of how dental developments and art history trends influenced figurative representations of dentists and patients.

Enhances knowledge of 'dentistry and art' and dental humanities.

Background Representations of 'dentists in action' in modern art have never been systematically researched. This paper surveys and analyses these portrayals for the first time. **Methods** Relevant paintings, prints, sculptures, and installations were identified by means of keyword searches in search engines, OPACs and picture libraries as well as handsearch. **Results** Between 1914 and 2014 more than 75 works of art with dental treatment as a motif appeared across the globe. Virtually every modern style from post-impressionism to 'crossover art' are represented, including world famous artists such as Dubuffet or Dalí. Syringes, Doriot's transmissions and contra-angle handpieces are worked into an iconographic code. In contrast, elements of an increasing hygiene consciousness (gloves, face masks and protective glasses) are integrated only fragmentarily. The dentist-patient relationship is predominantly portrayed professionally and realistically and the stereotype of the male dentist dominates. **Discussion** For almost a century it has been argued that dentists in action had largely disappeared from artistic production after 1900. The results presented here force a revision of this idea and encourage the further discovery of pictorial sources. Only in this way can the fascinating theme of 'dentistry in art' become an attractive part of dental humanities.

Background

'No artist today would consider portraying a dentist in their office [...] The interest of painters in our profession is minimal.' This finding from a recent study echoes the conclusions of numerous older surveys of 'dentistry and art'²⁻¹⁰ which unanimously argue that the link between dental practice and its figurative representation died in the twentieth century. Is it really true that a medical discipline based on anaesthetisation, offering minimally invasive treatment strategies, and guided by prevention is really no longer an artistic subject?

This paper argues that it is not. We shall first catalogue all those works of modern art which portray dental treatment and analyse the background of dentistry and art history. The main questions addressed will include: How many of such works can be identified? Which artists took this motif up? What kind of effects did technical

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Refereed Paper. Accepted 13 September 2017 DOI: 10.1038/sj.bdj.2017.998 innovations and art historical trends have on the iconography of the resulting productions? Did the feminisation of dentistry have any effect?

Material and methods

A systematic keyword search engine inquiry (google.com, WorldCat.org), online data banks (bda.org/library, zm-online.de, artprice.com) and image archives (prometheus-bildarchiv. de, https://collections.nlm.nih.gov/bookviewer?PID=nlm:nlmuid-0114074-bk) produced an initial overview of relevant works. To this was added a number of artefacts from more recent publications.11-13 However, at least a quarter of the materials found were not listed in electronic or printed media. These works were found via tips from colleagues, collectors, art dealers and art historians and were acquired as a digital copy. After arranging this data chronologically, each item was carefully described and interpreted. Of particular interest were representations of the dentist-patient relationship, the location of treatment, the kind of therapy as well as technical innovations and hygienic aspects.

This overview is limited to artwork in which a dental treatment (in the widest sense)

is depicted. We have excluded portraits as well as genres such as caricature, comics and photography. Despite considerable effort over many years of research, we cannot exclude the possibility that there are artworks missing.

Results

Based on these criteria, 79 images by 70 artists from a total of 22 countries have been included in this study. Most of these images are presented here for the first time to the dental profession. The period under investigation (1914–2014) has been divided into five 20-year periods. One representative image has been chosen from each period and the rest of the images are presented in tabular form. Summaries of art history trends and dental developments place the presented artwork in a larger cultural and scientific-historical context.

1914–1933: spirit of optimism in dentistry and art

The First World War marks a turning point in art history. Never before did so many new concepts and directions in art emerge in such a short period of time. Never had such a multiplicity of styles existed simultaneously. This diversity is

Table 1 Works of art depicting dentists in action (1914–1933)				
No.	Date	Artist	Title	
1-1	1914	Édouard Vuillard	[Dr Georges Viau in his Dental Office]	
1-2	1919	Peggy Bacon	'My Dentist (Did All the Cleverest Things to People's Mouths)'	
1-3	1920	Ernest Board	'The First Use of Ether in Dental Surgery'	
1-4	1924	Leonard Raven-Hill	'It Feels Like Many Hours in a Dentist's Chair From Which You Cannot Escape'	
1-5	1925	Edmund Blampied	'The Farmer Dentist'	
1-6	1927	John Leo Meissner	'From Dentist's Chair'	
1-7	1929	Sir John Lavery	'The Dentist (Conrad Ackner and His Patient)'	
1-8	1929	Gaston-Louis Roux	[The Tooth Ripper]	
1-9	1930	Edouard Tytgat	[The Dentist]	
1-10	1930	Ottohans Beier	'Dr med. dent. Alfred Thielmann'	
1-11	1930?	Albert Guillaume	'At the Dentist'	
1-12	n.d.	Istvan Drahos	'Dr Sigmund Leicht'	

n.d. = no date [] Original titles in foreign languages have been translated into English

also reflected in scenes of dental treatment in the years 1914 to 1933 (Table 1): postimpressionism (1-1), realism (1-7) and cubist abstraction (1-8)are represented along with 'peinture naive' (1-9) as are throwbacks to traditional imagery (1-3, 1-5, 1-11). Despite all their differences, most of the representations have something in common: in comparison to pre-modern painting, treatment is no longer staged in the open air and with a public audience, but rather in the intimate setting of a dental practice. Furthermore, these innovative artworks reproduce the radical changes the decades after 1900 brought to everyday academic dentistry: the confident use of local anaesthetics; improved diagnostic possibilities including intraoral X-rays; scientifically-established caries research with new prophylactic options; the transition from extraction to tooth preservation. 14,15 The most well-known dental scenes from this period include Vuillard's 'Dr. Viau' (1914)16, Board's 'The First Use of Ether in Dental Surgery' (1920), and Lavery's 'The Dentist' (1929), which includes the depiction of an X-ray machine.17

Meissner's 1927 woodcut 'From Dentist's Chair' (1–6) represents the modernism of dentistry in the art of this time (Fig. 1). The American artist produced a rare example of dental treatment from the patient's perspective. 18 Other than the Doriot's transmission, which replaced the foot-operated dental drill after 1893, there is little that indicates the interior of a dental office. What is striking here are the oversized hands of the dentist which occupy almost the entire lower half of the image. We see his face in the upper right, which is friendly and

focused. He is not wearing a mask or gloves, and whether he is wearing a gown is not clear. The viewer of this image, like the patient, perceives little of the actual treatment. Their view is instead of an American urban skyline. Yet the practitioner's furrowed brow and tensed masticatory muscles suggest a certain effort. One presumes he is holding a mirror and a dental



Fig. 1 Leo John Meissner, 'From Dentist's Chair', 1927. Reproduced with permission from Philadelphia Museum of Art, Accession number 1944–8–1. Gift of an anonymous donor, 1944

probe in his hands and is inspecting the oral status or perhaps he is applying the finishing touches with fine instruments to a new filling. In this case one might interpret this representation almost as an illustration of the new practice of restorative dentistry. Is the patient suffering from fear or pain? Altogether the work leaves a great deal of room for interpretation. Each viewer can project their own emotion onto it – whether forbidding, nightmarish or completely neutral.

1934-1953: wartime

Social, artistic and scientific developments during these two decades were significantly impacted by the second great, catastrophic war of the twentieth century. Nonetheless, a few art styles managed to continue to develop. In Hitler's Germany, however, and later in those areas occupied by Germany, artists in search of new forms of expression were persecuted and forced to emigrate. Many sought refuge in the USA and carried the European avantgarde with them across the Atlantic. We should like to emphasise two defining tendencies of international art. First, the advent of everyday experience in art: early pop-art brought an end to the demand for a distinctive work of art.19 Second, the return of the beautiful in the ugly: this principle is exemplified in the material collected here (Table 2) by two works by the French artist Jean Dubuffet entitled 'Dentiste' (2-5,2-6). Crude and non-conformist scenes, very much in the spirit of 'art brut' ('outsider art'), which is to be understood as the opposite of traditional 'art culturel'.20

World War II certainly caused a stagnation in the development of dentistry with essential innovations limited principally to dental technology with new synthetic materials and impression materials. Two other phenomena from this time deserve our attention: the first artistic representation of dental treatment by a dentist in the twentieth century (2-7) and the first known image of a female dentist together with patients (2-8). No image demonstrates more vividly the possibilities and limits of dentistry in wartime than '16th US Medical Regiment: Field Dental Service Operating During an Attack' by Leslie Cole from 1942 (2-3). This British artist served as an official war painter during the Second World War,21 though it was as a landscape painter that he made his name.22

The work presented here (Fig. 2) shows dental practice under wartime conditions in a converted attic. In the middle of the image

Table	Table 2 Works of art depicting dentists in action (1934–1953)			
No.	Date	Artist Title		
2-1	1938	Léon Bibel	'Dentist'	
2-2	1940	Eugène Cadel	[The Blacksmith-Dentist]	
2-3	1942	Leslie Cole	'16th US Medical Regiment: Field Dental Service Operating During an Attack'	
2-4	1942	Leslie Cole	'Dentistry During the Hour Of Gas Practice'	
2-5	1947	Jean Dubuffet	[Dentist]	
2-6	1947	Jean Dubuffet	[Dentist 2]	
2-7	1947	Imre Szekely	'The Dentist as a Surgeon'	
2-8	1947	Stephan Preuschhoff	[At the Dentist]	
2-9	n.d	Hugo Wetli	[Diabolic Dental Intervention]	

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Fig. 2 Leslie Cole, 'Field Dental Service Operating During an Attack', 1942. Reproduced with permission from Imperial War Museums, London, UK

lies a wounded man on a folding chair, the extent of his wounds not being visible. Instead of wearing a gown, the dental specialist and his assistant are in uniform and their masks and gloves are missing. The patient's clothing indicates that he too is a military man. He is covered with a white towel bearing red stripes, something we find repeatedly used as an element in this painting. Before the window stands a large table covered with dental instruments. On the left side of the image we see another small, lower table with two washbowls upon it, presumably hand disinfectant. A crate turned on end serves as an instrument tray, including a bowl being used, one assumes, for disinfection. Thus we have a treatment room, albeit a provisional one, which is nonetheless structured and outfitted with everything needed. Taken as a whole, it is a substantially authentic representation. In contrast, Cole's work 'Dentistry during the Hour of Gas Practice' (2–4), painted the same year, is essentially more dramatic.

1954–1973: tradition and innovation

Pop and action painting, concept art and new sculpture, fluxus and minimal art – all these developments in art from the 1960s had very little impact upon the world of 'dentistry and art' (Table 3). The work that shows the most of this influence is 'Patient in Dentist's Chair' (3–5), by Seymour Rosofsky in Chicago, whose grotesque

strokes fall outside of the conventional. Despite the initial feminisation of dentistry, the male dentist continued to dominate as a motif. The 1961 watercolour 'WAVE Dental Assistant' by the American painter Salvatore Indiviglia (3–4) can be considered typical for its time. On the other hand, some details of 'Mainstream' deviate from this (Fig. 3).

In this image we find a U.S. Naval Dental Facility dentist working in Pearl Harbour, Hawaii. As the title indicates, the picture is not about him, but about his young assistant. The acronym WAVES stands for 'Women Accepted for Volunteer Emergency Service', an organisation founded in 1942; the term WAVES was used through the 1970s.23 The protagonists work like a winning team: while he holds a delicate instrument in his right hand and is obviously busy with treatment, she uses suction to permit him an unobstructed view of the area to be worked upon. The patient, dressed in white and wearing a bib, lies with his mouth open in a dental chair. As no Doriot's transmission is visible, one might speculate whether this military treatment facility already has a pneumatically driven dental turbine which permitted time saving cavity and abutment preparations since the early 1960s.15 What is clear, however, is that another innovation is included in this representation: the face mask. It was at just this time that dentists began placing increasing emphasis on hygiene and the disinfection of their instruments. The reason for this change was due to a rise in hepatitis B, the emergence of antibiotic resistance, and the suspicion that the new pneumatically driven turbine was responsible for propagating pathogens and spreading disease within the dental sphere.24

1974-1993: changing paradigms

One can grossly characterise the art of the 1970s and 1980s with the phrase 'phasing out the image' and as having turned toward new materials and media.¹⁹ As regards the interface of dentistry and art (Table 4), the result of this trend was initially a renaissance of a familiar art form: sculpture. Never before had so many treatment scenes been given three-dimensional form (4-3, 4-13, 4-15, 4-20, 4-21). The globalisation of the art market also found an echo in dentistry. For the first time relevant works were produced not only in Europe and North America, but also in Africa (4-9, 4-10, 4-11, 4-15, 4-21), Russia (4-12) and Central America (4-17). Simultaneously, earlier art trends continued: late in life Salvador Dalí

Table 3 Works of art depicting dentists in action (1954 – 1973)			
No.	Date	Artist	Title
3-1	1955	Widmar	[The Dentist]
3-2	1958	J. Raymond Warren	'Primitive Dentist'
3-3	1960	James Proudfoot	'Portrait of a Dentist with Patient in Chair'
3-4	1961	Salvatore Indiviglia	'Wave Dental Assistant'
3-5	1961	Seymour Rosofsky	'Patient in Dentist's Chair'
3-6	1966	Jeannie Borel	[In the Dental Office of Dr. Herzog]
3-7	1971	Raffaele Leomporri	At the Dentist's I'
3-8	1971	Raffaele Leomporri	'At the Dentist's II'
3-9	n.d.	Anonymous	Untitled/Spanish ceramic plate
3-10	n.d.	Walter Scapinello	[The Dentist]

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Fig. 3 Salvatore Indiviglia, 'Wave Dental Assistant', 1961. Courtesy of Navy Art Collection, Naval History and Heritage Command, Washington, DC

created an impressive work in this vein (4–5), and Israeli-born Yuval Mahler created two images in the tradition of naive art (4–6, 4–7). The famous Viennese performance artist Otto Mühl also made use of a dental treatment scene, if in a rather expressionistic style (4–8).

Similarly, we find in this period the post-expressionist Kostas Lekakis from Los Angeles (4–14). He returned to placing the patient-dentist relationship at the centre of his garishly coloured oil painting from 1990 (Fig. 4). He explains this work himself on his website as: 'An expressionism about the/drama of selfangst/and uncare [...] people on a/dependency lifestyle that/takes the fun and love out/of their

life's event [...] But/with a cure in the horizon/ THE DENTAL RELATIONSHIP'. This scene shows a dentist using two frightening instruments: a drill in his right hand and a syringe in his left. Full of concentration and with his reddened face he gets to work eagerly, though with little empathy, while looking directly down into the wide open mouth of his patient who is showing his intact, strongly schematised teeth. The patient struggles against the imminent treatment – as is clearly indicated by his overstretched neck and the twisted body position. On the adjustable tray we see a second syringe, a scalpel and a clamp. Other than the implied treatment chair there are no other

elements of a dental practice visible, though the prominent placing of the tray permits the observer to conclude immediately that surgery is inevitable.

1994–2013: media-oriented crossover

Since the 1990s art has expanded in every direction producing an unprecedented diversity. The hierarchy of artistic genres and distinctions between creative modes has been blurred. 'crossover' was and remains a key word which in this context often serves as a recapitulatory characteristic.19 It is thus not surprising that all of these tendencies can be found in dental iconography (Table 5). Representations which approach the comic or resemble an advertising poster (5-1, 5-4, 5-7, 5-8, 5-9, 5-12, 5-17, 5-24) are placed next to installations (5-6) and artwork which have been produced by students in high school (5-20, 5-21). The motif of dental treatment now includes Chinese art (5-5, 5-11) as well as South American (5-10, 5-15). Yet even at the turn of the millennium we find artwork which remains true to cubism (5-23) and realism (5-3, 5-13, 5-18, 5-26).

The latter group includes an image by the Dutch artist Marjolein Bresser (5-16) who gave this oil painting (Fig. 5) to her dentist.²⁶ The first thing that jumps out is the friendly, warm atmosphere. The dentist, dressed entirely in white, sits in the middle of the image close to his patient. He is wearing gloves, a mask and safety glasses, thus fulfilling hygiene codes, all of which have been standard since the 1980s²⁷ - although there is not much of his face left to recognise. He is concentrating on his task and his grey hair bespeaks experience and seriousness. With his left hand he holds the patient's cheek aside and with his right he is using a contra-angle handpiece. The treatment light casts a beam of light straight onto the area to be treated although which quadrant is being worked upon can only be surmised by where the dentist is sitting. He has assumed an upright, slightly forward leaning, yet still ergonomic position. His patient is lying far back in the dentist's chair and neither gesture nor facial expression permit any knowledge of her emotional state. This 'posed' scene achieves a certain vividness by virtue of the appropriately chosen painting technique and the bright colour scheme. The small size of the image section means that the customary equipment of a dental practice, beyond treatment chair and handpiece, only includes the typical drawer cabinets in the background.

Discussion and conclusions

From Proskauer's famous 'Iconographia odontologica'28 to the most recent publications1,17 research into the theme of 'dentistry in art' has been dominated by a prejudice; in pre-modern epochs we find the anguished face of a patient and their fear of the tooth extraction as the most favoured pictorial object. Since 1900, however, 'dentists in action' are said to have disappeared from artistic production. As the results here show, artistic representations of dentists and their patients have not at all disappeared. Quite the opposite is true; the motif of dental treatment was not only a continuing presence throughout the twentieth century, but has appeared even more prominently in contemporary art (see Tables 4 and 5). One is almost tempted to speak of an 'odontalisation' of the contemporary art scene.

Access to this heretofore unappreciated phenomenon is, however, hampered by methodological problems. Because artwork of a particular theme is only systematically searchable within narrow limits, the material presented here is as incomplete as it is heterogeneous. For this reason the following conclusions should be understood as heuristic hypotheses which require validation:

- 1. The motif of dental treatment appears in virtually every trend and style of modern art, from post-impressionism to twenty-first century installations
- 2. Most oil paintings, watercolours, prints, collages and sculptures come from less well-known artists. Yet even famous painters such as Vuillard, Lavery, Cole, Dubuffet and Dalí have chosen this subject
- 3. Less surprising is that progress in dental medicine made over the last century

- reverberates through these artworks albeit with some time lag and by no means in every case. Dental chairs, Doriot's transmissions, syringes, X-ray tubes and contra-angle handpieces all belong to the distinctive 'iconographic code' of the dental profession in the twentieth and twenty-first centuries.²⁹ Yet more than ten modern images still include a dental forceps
- 4. Less often do we find the transition to a hygiene consciousness expressed. In fewer than ten representations do we find both gloves and face masks
- 5. Excepting two female precursors, female dentists only appear as a motif after 1990. There are in total only three depictions of them in contemporary art and thus their number remains extremely small. This failure to accurately represent the feminisation of the profession can be similarly found in 'dentistry in film'³⁰ and demands further research
- 6. Most of the depictions of the dentist-patient relationship are sober, business-like and professional (see Figures 1, 3, 5). Yet there are also patients who show pain, fear or a negative reaction to treatment
- No artist to date has paid any attention to the achievements of implantology, the surgical microscope, or developments in orthodontics.

Table 4 Works of art depicting dentists in action (1974–1993)				
No.	Date	Artist	Title	
4-1	1974	Norman Rockwell	'The Expected and the Unexpected'	
4-2	1980	Leonid Stschetnew	[Bookplate Axel Leier]	
4-3	1980	Ronald Wicks	'Professional Hands'	
4-4	1980	Raymond Poulet	[The Dentist at Work]	
4-5	1980	Salvador Dali í	[The Light of Healing/The Dentist]	
4-6	ca. 1980	Yuval Mahler	'Drilling Baby'	
4-7	ca. 1980	Yuval Mahler	'Annual Check'	
4-8	1981	Otto Mühl	[Dentist]	
4-9	1986	George Lilanga di Nyama	[The Tooth Doctor]	
4-10	1986	George Lilanga di Nyama	[At the Dentist I]	
4-11	1986	George Lilanga di Nyama	[At the Dentist II]	
4-12	1987	Konstantin Samoylenko	'Dentist'	
4-13	1988	Ronadró	'Dentistry '88'	
4-14	1990	Kostas Lekakis	'Dental Relationship'	
4-15	1990	Didier A. Ahadsi	[At the Dentist]	
4-16	1990	Francesco Musante	[The Dentist]	
4-17	1990	Raphael Enrique Gonzalez de Mendez	[Rural Dentist]	
4-18	1992	Roberta Goschke	'The Dentist'	
4-19	ca. 1993	Kevin Charles	'At the Dentist's'	
4-20	n.d.	Cazzola Luciano	[On the Dentist's Chair]	
4-21	n.d.	Didier A. Ahadsi	[The Dentist]	
4-22	n.d.	Jean Duranel	[The Dentist]	

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Fig. 4 Kostas Lekakis, 'Dental Relationship', 1990. Reproduced with permission from Kostas Lekakis

Table 5 Works of art depicting dentists in action (1994–2013)			
No.	Date	Artist	Title
5-1	1995	Arthur Appelberg	[The Dentist]
5-2	1999	Domingo Garcia Criado	[The Dentist]
5-3	2002	Barthel Brussee	[Dentist]
5-4	2004	Litsa Spathi	'Memories of a Dentist'
5-5	2006	Zhang Huan	'Dentist'
5-6	2006	Deborah Sengl	'Puma-Dentist'
5-7	2007	Anthony Falbo	'The Dentist is in'
5-8	2007	Anthony Falbo	'The Dentist is in, Root Canal'
5-9	2007	Francis Moreeuw	[Scene of ordinary life: AT THE DENTIST]
5-10	2008	Domingo Garcia Criado	[Dentist]
5-11	2009	Wu Shidao	[Village Dentist]
5-12	2009	Victor Molev	'Dentist'
5-13	2009	David Lebel	'Dentist'
5-14	2010	Lenz Geerk	[Dentist]
5-15	2010	Luis Antonio Godoy Choc	[The Dentist]
5-16	2010	Marjolein Bresser	[The Dentist]
5-17	2011	Benjamin Nyari	'Fear from the Dentist'
5-18	2011	Christopher Gordon Johnson	'Your Child's First Trip to the Dentist'
5-19	2012	Sally Parnis	'Dentist'
5-20	2013	Gabrielle Guenther	'The Dirty South Dentist'
5-21	2013	Gia Adomavicius	'Robot Dentist'
5-22	n.d.	Longo Cerva	'The Italian Dentist'
5-23	n.d.	Magdalena Giesek	'The Dentist'
5-24	n.d.	Udo Lindenberg	[Don't Panic – It'll Be Over Soon]
5-25	n.d.	Chris Andrews	'Patient Lying on a Dentist Chair, Waiting for the Dentist'
5-26	n.d.	Eddy Bosseno	'Surgery'

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Artwork that portrays dentists and their patients can be seen as an important picture library for the history of everyday life. Within fixed limits, they testify to social and technical developments, emotional reactions, and interpersonal relationships. Last but not least, artistic representations and interpretations echo the public appreciation (or contempt) for the dental profession; conversely, they influence its image.

The repercussions of dentistry in literature, film and art constitute an important part of the 'dental humanities'. In this regard this paper is designed as an impulse to more intensely study the recent history of this medical discipline in interdisciplinary cooperation and to connect

the results. This would produce a rewarding contribution to the medical cultural history of the last century.

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Fig. 5 Marjolein Bresser, 'De Tandarts', 2010. Reproduced with permission from Marjolein Bresser

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