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Design thinking in dentistry: A toolkit for complex problem solving in practice

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Dentistry is full of complex problems, ranging on a local level, from missed appointments and patient non-compliance, to stress in the workforce, to more general problems, such as access to dental care and dental phobias. These types of problems are known in the design world as wicked problems, having many complex factors and stakeholders, and being difficult or impossible to solve. Designers regularly tackle wicked problems using design thinking. Design thinking is a methodology in non-traditional, non-linear problem solving, based in empathy. Design thinking utilizes techniques such as sketching, rapid prototyping and role-playing from the creative arts, and applies them to understanding and re-defining complex problems, leading to the generation of new ideas. Design thinking has been successfully applied in the business world, pioneered by companies such as IDEO, and schools such as The Stanford Design school, demonstrating the usefulness of the methodology outside of the traditional creative industries. In the last few years, design thinking has started to gain attention in the context of general healthcare. It is author's aim to apply design thinking to complex problems in dentistry, to improve outcomes for patients and dentists alike. In this, hands on interactive workshop, she will teach a basic toolkit of design thinking methods, based on design thinking cycles such as that shown in Figure 1, will help participants to be able to look at their own practices with fresh eyes, and to come up with new and innovative ways to change things for the better.



Figure: 5 Components of a design thinking cycle based on Stanford design school's process modules.

Recent Publications

1. Buchanan R (1992) Wicked Problems in design thinking. Design Issues 8(2):5-21.
2. Pradhan A (2017) Design thinking: innovation through empathy. Training & Development 44(5):8-10.
3. Jess P Roberts, Thomas R Fisher, Matthew J Trowbridge and C Bent (2016) A design thinking framework for healthcare management and innovation. Healthc (Amst). 4(1):11-4.

Biography

Helen Elizabeth Brinkhoff is passionate about innovation, and with one foot firmly in the dental world and the other in the exciting world of design, she is an expert in crossing the traditional boundaries between academic disciplines in the arts and sciences. Her aim is to bring problem solving methods that have been successfully applied in business and the arts to the forefront of dental healthcare. Having qualified as a Dentist in the UK in 2014, she currently works in Germany as a General Dental Practitioner with a special interest in endodontics, and studies long distance towards a degree in 'Design and Innovation' at The Open University.

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