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Applying Health Psychology to Dentistry: 'People, Not Teeth'

Sarah Baker

Introduction: Why Dentistry?

I originally intended to become a sociologist but got unwittingly sidetracked into doing a psychology degree, which I began in 1987 at the University of Plymouth. I was not one of those people who knew what they wanted to do aged 10, so I fell into doing a PhD at the same institution. My thesis was on the psychophysiological indices of stress and a great amount of time, thought and energy went into devising ways of making people stressed. Once this was achieved, the rest of the time was spent in a dark soundproof room, my polygraph and I, stressing people and measuring their sweat. Three years later, I embarked on a research assistant job whilst writing up my thesis. Following years in a darkened room with a polygraph, this job, investigating psychophysiological reactions whilst playing video games, was rather fun. However, after a year I clearly could not put it off any longer; a responsible job was needed. I got my PhD and took up a postdoctoral research fellow position in the Department of Psychology at the University of Surrey. The Wellcome Trust–funded study on the psychophysiological and behavioural correlates of social phobia had much in common with the previous 5 years; I spent much of it in a small darkened room measuring the responses of socially phobic individuals whilst they had to interact with others. I realised a number of things early on; in order to spend time with people rather than a large machine (aka a polygraph), to get a bigger room (with lighting) and have job security, I would have to apply for lectureship positions. Given my anxiety of public speaking at the time, this was not something I warmed to. I duly became a Lecturer in Biological Psychology at Coventry University in 1997, followed by a Lecturer in Health Psychology at Keele University in 1998, where I stayed until

2005. The position in the Psychology Department at Keele was where I really learnt my research skills; particularly the importance of theory and methodology. However, I was also forming the opinion that research in health psychology, that is *applied* research, needed to move out of psychology departments into 'the field'. I wanted, in the old cliché, to 'make a difference' through research; to make it useful and relevant to patient populations. I could only do that by putting my job where my mouth was. Moving to medicine was the obvious choice – there were now quite a few psychologists working in medical schools – but why have the route already mapped for you? I opted for Dentistry. I left the Psychology Department and travelled to the Dental School in Sheffield in 2005. There are 16 dental schools in the United Kingdom, including Sheffield, and I can count the number of psychologists working in these on one hand. Inevitably, 'What is a psychologist doing in dentistry?' or its alternative 'So you do dental anxiety then?' have been asked many times by dental undergraduates, dentists and even psychologists. It was an interesting, in some ways an impulsive choice but, most certainly, the right choice.

What's a Psychologist Doing in Dentistry?

Why would a psychologist be employed in a dental school? The cynical answer is that all such schools have to be accredited every 6 years and the teaching of behavioural science is a part of the undergraduate Bachelor of Dental Surgery (BDS) curriculum. However, many schools simply ask already employed clinicians to do this teaching because 'Psychology is just common sense, isn't it?' When psychologists are employed, it is generally because someone in a senior position has the foresight to understand the potential contributions a psychologist can make to teaching, research and service in dentistry.

This was so in my case. I joined a growing team in Dental Public Health consisting of clinicians (paediatric dentists, orthodontists and dental public health specialists) and two social scientists (sociologists). We are one of four departments in the School of Clinical Dentistry, alongside Oral and Maxillofacial Surgery, Oral Pathology and Adult Dental Care. The School itself is linked, physically and in terms of both teaching and research, with the Charles Clifford Dental Hospital. The dental hospital is one of five hospitals which make up Sheffield Teaching Hospitals NHS Foundation Trust, and provides casualty services and specialist diagnosis, treatment and management for adult and child dental patients. These specialties include restorative dentistry, oral and maxillofacial surgery, paediatric dentistry, orthodontics, cleft lip and palate services, craniofacial implant surgery and trigeminal facial pain.

As the only psychologist in the School and Hospital, my overarching goal through my work has been to shift colleagues' thinking to 'people, not teeth'. So whilst my specialist contribution is the application of the theory, method and techniques from the discipline of psychology to oral health, my role is much broader and diffuse. Essentially it is as an advocate for the biopsychosocial paradigm. This may seem very basic to a psychology reader. However, dentistry is about teeth, gums and the oral

cavity – the 'bio' – and it lags some way behind medicine in its consideration of and the importance placed on either the 'psycho' or 'social'. Much of my work is therefore about building a bridge between the clinical and social science disciplines. As such, collaboration and interdisciplinarity are the key.

Interdisciplinarity

> Interdisciplinary research is a mode of research by teams or individuals that integrates information, data, techniques, tools, perspectives, concepts and/or theories from two or more disciplines or bodies of specialized knowledge to advance fundamental understanding or to solve problems whose solutions are beyond the scope of a single discipline or area of research practice. (National Academy of Sciences, 2005)

Health is multifaceted and complex; key questions go beyond the expertise of one clinician or one academic and require the efforts and inputs of different disciplines. All of my research involves collaboration with individuals from outside of psychology in order to advance understanding in ways that would not be achievable by one discipline alone through the sharing of ideas, or integration of concepts, methodology or theory. As in all interdisciplinary work, I have to be both a generalist and a specialist. My job is to render the specialist expertise of a psychologist intelligible and relevant to dentists. This requires the skills to be able to analyse, evaluate and synthesise information from different areas of psychology in order to develop and address the pertinent research questions about particular phenomena in dentistry.

Inevitably there are conflicts and difficulty in achieving a way forward. The balance has to be found between the expertise you bring and shared decision making. The decision cannot be 'made' by one person. Interdisciplinarity therefore involves the 3 Cs: cooperation, conflict and compromise! Over time working in many interdisciplinary teams, I have come to appreciate that it is a skill, learnt like others through trial and error; the skill to speak your opinion and be confident enough to differ. You have to enjoy having different perspectives, listening to others and seeking a 'third way'. In a way you are both representing and promoting a discipline; you are educating fellow academics and clinicians on what psychology is and what psychologists do.

The Importance of Theory

One of my key contributions to these teams has been putting forward the importance of a theoretical framework in which to guide research. Theory has not generally been seen as important in dentistry or in dental public health. Theory, however, is important for a number of reasons. Theory helps to address the *what, why and how?* questions; what is the problem? Why does it happen?

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What are the contextual influences? What can we do about it? Theory therefore provides the framework to help develop appropriate research questions, identify key variables, establish relationships, interpret findings and design and evaluate interventions.

Oral Health–Related Quality of Life

One of my primary research areas is the testing and development of theoretical models in the field of oral health–related quality of life (OHRQoL) through the use of structural equation modelling (Baker, 2007, 2009, 2010; Baker *et al.*, 2007, 2008, 2010). OHRQoL is a multidimensional construct that refers to the extent to which oral conditions disrupt a person's normal functioning. OHRQoL has, over recent years, become an important focus for assessing the impact of a range of oral conditions on quality of life and well-being (e.g. Gift *et al.*, 1997) together with the outcomes of clinical care such as the effectiveness of treatment interventions (e.g. Awad *et al.*, 2000). Research in the field has largely been descriptive and atheoretical; there have been few studies that have assessed the range of psychosocial factors that influence OHRQoL or attempted to explicitly test the direct and mediated linkages between key variables within a theoretical model.

Why is providing answers to such questions important? Firstly, the validity of OHRQoL as an outcome measure in clinical trials is partly dependent on understanding the causal processes linking oral conditions to patient-reported outcomes. In order to understand the pathways underlying such effects, any proposed model needs to be valid and empirically tested (Shrout and Bolger, 2002). Secondly, developing knowledge of key pathways will help facilitate the design of intervention strategies by, for example, guiding clinicians as to where to most effectively intervene, with whom and in what way.

One model, which explicitly conceptualizes the relationship between clinical factors and quality of life, is that of Wilson and Cleary (1995). This model has become one of the most well-established biopsychosocial models used in a variety of health contexts including cardiovascular disease and HIV/AIDS (Wettergren *et al.*, 2004). My research has been the first to test the validity of the model in relation to chronic oral health conditions, notably xerostomia (Baker *et al.*, 2007) and edentulousness (Baker *et al.*, 2008).

Xerostomia is a common chronic health condition, affecting one quarter of adults and 40% of elderly people, and is a side effect of over 400 therapeutic drugs (e.g. antidepressants). Xerostomia is also seen as a sequela of damage to salivary glands in autoimmune (e.g. rheumatoid arthritis), and other systemic diseases (e.g. multiple sclerosis); and as a consequence of radiation for treatment of head and neck cancer. Symptoms can often be severe and debilitating with a reduced ability to speak, chew, swallow, taste and sleep (Pankhurst *et al.*, 1996). To date, nearly all research in the area has been clinical in nature; yet, in the absence of a curative treatment, the overriding

therapeutic goal is long-term management. As such, where treatment is not about cure but increasing patient comfort, there is a strong case for understanding the impact of the condition on patients' everyday lives.

The aim of our study was to test an integrative conceptual model to provide a more comprehensive picture of the impact of xerostomia on the daily lives of patients. The study was a secondary analysis of data collected as part of a randomised control trial of a device for the management of xerostomia (Robinson *et al.*, 2005) using structural equation modelling (SEM). SEM is a powerful statistical technique that allows simultaneous testing of complex interrelationships between variables specified within *a priori* models (Kline, 2005). As such, it is currently the best technique for assessing and modifying theoretical models.

Our findings supported Wilson and Cleary's conceptual model of patient outcomes as applied to xerostomia and highlighted the complexity of (inter-) relationships between key clinical and psychosocial variables (Baker *et al.*, 2007). The results, together with our other SEM studies with both patient and general populations (Baker, 2007, 2009, 2010; Baker *et al.*, 2008, 2010), have a number of important theoretical and clinical implications. Firstly, modelling indirect and mediated effects has helped reconcile why systematic observations between clinical and subjective measures found in previous (oral) health research have generally been weak. Secondly, they re-emphasize the importance of patient-reported outcomes (e.g. OHRQoL) being routinely assessed, alongside traditional clinical indicators, disease-specific symptom measures and wider well-being, in both research and clinical practice. Thirdly, interventions aimed solely at the biological-clinical level, which do not take into account patient experiences of their symptoms, will not be fully effective.

The Impact of Oral Health on Children, Adolescents and Their Families

Disfigurement to the face, hands and body affects about 400,000 people in Britain. These visible differences can arise from congenital craniofacial anomalies or be acquired as a result of trauma, or dermatological conditions. Cleft lip and/or palate (CL/P) is the most common congenital condition of the head and neck region affecting between 1 in 600–700 babies. Treatment requires multiple surgical procedures from birth through infancy, childhood, adolescence and into adulthood, and frequent clinic attendances to deal with problems related to impaired facial growth, speech impairment, hearing difficulties and dental anomalies. As such, CL/P can bring a range of additional life stressors which may impact not only on the person but also on the family unit.

To date, as with much of the appearance literature, the vast majority of research on CL/P has explored this from a perspective of how negative and psychologically damaging the experience is. Yet, in the wider stress literature, it has become evident

that people who experience major life stressors can find benefit from such events, often reporting a range of positive outcomes co-occurring alongside negative ones (Folkman, 1997). In our research, we have been working within a stress resiliency framework to explore the factors influencing how families 'adjust well' to having a child with CL/P (Baker *et al.*, 2009) or dental trauma (Porritt *et al.*, 2010). The framework we have been using is the resiliency model of family stress, adjustment, and adaptation (Danielson, 1985), which explains the family's response to a life stressor such as chronic illness, and the individual and family resources that influence coping and, in turn, adjustment.

Findings from our CL/P study indicated that whilst there were many impacts of a child's condition on the family, negative outcomes (e.g. family impact and psychological distress) were not high. On the contrary, parents reported high levels of positive adjustment or 'stress-related growth' as a result of their child's condition. Examples of positive outcomes involved better self-understanding and treatment of others, greater personal strength and optimism, more effective ability to regulate emotions and a greater sense of belonging and religiousness. Such positive adjustment is in line with the three major types of stress-related growth reported in the literature, (1) better social resources, (2) better personal resources and (3) new or improved coping skills (Schaefer and Moos, 1992).

As with the study discussed in this chapter, most of the research I am involved in is about developing an evidence base. This may be in relation to CL/P, or the impact of dental trauma on families and children (Porritt *et al.*, 2010), whether craniofacial conditions influence children's transition to secondary school (Marshman *et al.*, 2009), the influence of cultural factors on meanings of appearance and appearance-altering surgery (orthognathic surgery) (Stocker *et al.*, 2010) or the psychosocial factors which influence adolescents' oral health status and quality of life outcomes (Baker *et al.*, 2010). Each of these studies is designed to build an evidence-based case that has the potential, in the longer term, to contribute to the development of clinical services which are sensitive to the psychosocial needs of patients, children and their families (i.e. 'people, not teeth').

For example, in our most recent work (Baker *et al.*, 2010), we found that it was not clinical status (decayed and missing teeth) that was important in terms of adolescents' health and general quality of life outcomes but psychosocial factors, primarily sense of coherence (SOC). Having a greater SOC – that is, perceiving the world as more comprehensible, meaningful and manageable – was linked prospectively to fewer symptoms, lower functional impacts, better health perceptions and a better overall quality of life. Such findings, the first in relation to oral health, are in line with Antonovsky's (1979) salutogenic theory. Such a salutogenic approach has been advocated in recent health promotion initiatives (Eriksson & Lindstrom, 2008), and it may be that enhancing SOC could be an important 'psychological flu shot' for longer term inoculation against oral ill health. To this end, we are currently carrying out a feasibility study of an SOC school-based intervention for improving oral health–related quality of life in children.

Improving Communication Skills of the Dentists of Tomorrow

In their classic study of dentist–patient communication, Wanless and Holloway (1994) audiotaped consultations between general dental practitioners (GDPs) and 132 adolescents aged 10–17 years. They found that only 56% of consultations involved a verbal greeting to their patient, only 19% involved a preliminary explanation of what the aim of the session was and what was going to happen, and only 4% involved a summary of what the session had achieved.

In medicine, significant developments have been made in the training of general practitioners in patient communication. Few such developments have occurred in dentistry. Yet, we know there are problems. The 1998 Adult Dental Health Survey found that 64% of respondents were nervous of some sort of dental treatment and 49% were anxious of going to the dentist (Kelly *et al.*, 2000). Dental anxiety has been found to be the highest in those who perceive their relationship with their dentist to be poor. Conversely, we know that effective communication increases the quality and amount of information obtained from the patient which, in turn, leads to more accurate and efficient diagnoses. Further, effective communication increases the likelihood of patient adherence to recommendations and treatment, and leads to better health outcomes for patients, greater satisfaction for both patient and health care professionals and a reduction in the level of patient complaints and litigation (Silverman *et al.*, 2005).

The General Dental Council (GDC), the professional body which regulates dental professionals in the United Kingdom and accredits all undergraduate dental courses in the United Kingdom, has recently made communication one of the required competencies of the undergraduate dental curriculum (GDC, *The First Five Years*, 2002). Partly as a result of these changes, the Dental School at Sheffield wanted to significantly enhance its provision within its new leading-edge curriculum to be implemented in 2007. I was given the role of developing and implementing a new communication skills component for this curriculum.

Given the minimal evidence base in dentistry, I decided to adapt an existing communication skills framework developed for medical consultations; the Calgary-Cambridge Framework (CCF) (Kurtz *et al.*, 2005; Silverman *et al.*, 2005). The rationale underlying the CCF is that communication is a core clinical skill rather than an optional extra.

The CCF summarizes the five key stages of a consultation which are the basic tasks that need to be accomplished in everyday clinical practice; initiating the session, gathering information and patient interviewing, the physical examination and treatment, explanation and closing the session. The framework therefore helps the dentist with structure (where am I in the consultation and what do I want to achieve?). It also helps with specific skills (how do I get there?) by providing 71 (yes 71!) different communication process skills that can be used in different stages of the consultation (e.g. the use of open and closed questioning, and relating explanations to the patient's illness framework). Lastly, it helps with phrasing or behaviour (how can I

incorporate these skills into my own style and make it work for me?). All of the skills incorporated within the CCF have emerged from research and practice as being of value to communication in health care settings.

The communication skills course that I developed is taught within the first 3 years of the 5-year undergraduate BDS programme. In the first year, prior to students working with patients, the aim is to simply increase their awareness of the importance of communication skills in dentistry, develop their understanding of core communication skills and appreciate the patient-centred approach – the CCF. This may seem straightforward but there are often a number of barriers: students may perceive that their communication skills are good and they will not learn anything, that communication skills are in some way innate and cannot be taught or that their clinical skills are more important and that is where they should therefore invest time and effort. Getting past these barriers – facilitating self-reflection – is the challenge.

The second year is about developing students' core communication skills and for them to begin to apply these skills in patient management. In the small-group sessions, we use trigger tapes as a means of analysing the consultation. The tapes can be used to identify, label and critique skills and to discuss more or less effective skills. On the clinic, students complete both peer and self-assessment exercises of actual communication skills ability, which are then reflected upon in small-group work. In the third year, the aim is to consolidate core communication skills and begin to apply these to specific communication issues and challenges (working with children, elderly people, persons with learning disabilities, cultural and gender issues, and people with dental anxiety and fear). We use role-play of different scenarios in small-group sessions, with student actors taking the role of the patient. Following this, at the end of the year, students' communication skills are formally assessed by way of an Objective Structured Clinical Exam (OSCE). OSCEs comprise short (5–10-minute) stations in which candidates are examined individually by two examiners with real or simulated patients, and are often used in health services (medicine, nursing, dentistry) to exam clinical skill performance and competencies.

The first two years of the course have now been successfully implemented, and evaluations are being carried out. The results will be published and used to inform the evidence base in dental education for the design and implementation of theory-led communication skills courses in dentistry. In addition, I am currently modifying the material into short CPD (continuing professional development) courses for GDPs to use in their everyday clinical practice.

Professional Service, Development and Supervision

Supervision

A great deal of my time is spent giving supervision. Some of this involves formal supervision on a range of undergraduate and postgraduate courses; from the elective projects fourth-year undergraduate dental students have to complete when

on outreach (education and practice in the community), to oral health promotion projects on the Diploma in Hygiene and Therapy programme, to dissertations on the Masters in Dental Public Health course. Each of these has very different aims, vary greatly in their educational level and require distinctly different depths of psychological theory and methodology input.

In addition, I supervise between four and seven PhD students at any one time. These students may be either psychology graduates who have an interest in applying a psychological perspective to key areas in oral health (e.g. dental trauma and orthognathics); or, alternatively, they are qualified dentists largely from other countries (e.g. Malaysia or Thailand) who are paid by their government to complete further postgraduate study. These students do dental projects (dental screening, oral health promotion and oral cancer screening) which incorporate some aspect of psychological theory. All students are supervised in interdisciplinary teams, comprising myself and relevant clinician(s).

Hand-in-hand with the importance of theory in psychology, is the emphasis placed on research methods. This is in stark contrast to training received in undergraduate and postgraduate dental courses, in which research methods get barely a look in. This has meant that, in addition to formal supervision, I also provide a great deal of advice on research methods and statistics to consultant clinicians carrying out their own research, to specialist registrars in paediatric dentistry, orthodontics or restorative dentistry who have to carry out projects as part of their training, to academic colleagues, and through the development of my Research Methods in Clinical Dentistry module on the Masters in Dental Public Health course.

Given the lack of research methods training in dentistry, the methodological soundness of much of dental research leaves a lot to be desired. In regard to this, I view one of my key professional contributions to dentistry as being the editorial and review work I do for dental journals. I am currently section editor for behavioural sciences for the journal *Cleft Palate-Craniofacial Journal*. This journal is the official publication of the American Cleft Palate-Craniofacial Association and is directed to a multidisciplinary readership of clinicians and academics interested in craniofacial anomalies, including cleft lip and cleft palate. This is an important role as the number of submitted manuscripts which incorporate what might be (very) loosely termed a 'behavioural' measure is increasing; primarily because of the shift in emphasis within clinical research to the inclusion of patient-reported outcome measures (PROMs). I am also a member of the editorial board for the pre-eminent journal in the field of dental public health, *Community Dentistry and Oral Epidemiology*. The journal serves as a forum for research in community dentistry, which means that its scope is broad, encompassing epidemiology, behavioural sciences and health services research.

Both of these roles require an ability to judge a manuscript's originality, validity and relevance from a purely scientific point of view as well as a practical clinical perspective. Both roles are immensely interesting but time consuming, for which there is little direct reward! Again, I am often the only non-clinician in these roles and have to find a line between rigorous academic standards, maintaining credibility and

incorporating a psychological perspective. At the same time, it is hugely gratifying that my training in psychology can be useful to other academics and clinicians, often with a very biomedical perspective, as well as to wider scholarship in dentistry.

Development

Minority influence is a form of social influence when the majority are being influenced to accept the beliefs and behaviour of the minority (Moscovici *et al.*, 1969). Initially, a minority of one was thought to be the most influential (Moscovici and Nemeth, 1974), although recent research suggests that two people may be more influential because they are less likely to be viewed as strange and eccentric (Maass and Clark, 1984)! Minority influence is increased by the minority being part of the 'in-group' as their ideas are viewed as more acceptable than those from the 'out-group' (Maass and Clark, 1984).

What does this mean for the application of health psychology? Health psychologists may find they have greater influence if they are located with the 'in-group' (i.e. employed in medicine/dentistry/NHS rather than in psychology departments). Health psychology will gain more credibility in medicine and dentistry if the minority is greater than one and growing. In line with this, I view capacity building within dentistry as a key part of my professional contribution to psychology. At an individual level, this occurs through my supervision of Stage 2 Health Psychology trainees, encouraging psychology graduates to do PhDs in psychology as applied to oral health, and furthering postdoctoral careers for psychology PhD students who are located in dentistry.

On a wider level, this involves getting colleagues together who work in social science as applied to oral heath to develop collaborations and network. In this way, the social science minority, if we remain consistent (!), will, over time, gain credibility and a growing influence. Myself, together with sociology and psychology colleagues, recently organised a successful day in which we brought together all social scientists working in oral health in the United States to discuss where we are now in terms of a social science agenda and how to move this forward. The day acted as both a networking opportunity (being a minority of one can sometimes be a little lonely) and an academic exercise (what areas can we best collaborate in? In what ways? How can we proceed?). In June of this year, we also saw the first issue of the journal *Social Science and Dentistry*, which will act as an important forum for developing a social science agenda and, hopefully, act as a spur to further professional development.

Service

Most of my professional service comes from consultancy work. Over the last three years, myself and colleagues within the Dental Public Health unit have carried out

extensive work for the consumer health care division of GlaxoSmithKline (GSK). GSK have a number of leading oral health care products, one of which is for dentine sensitivity. Dentine sensitivity is the sensation felt when nerves inside the dentin of the teeth are exposed to the environment. Pain is the major symptom of the condition. Studies of patients' experiences have largely been restricted to ratings of pain, typically in the laboratory; there has been little consideration of the impact of the condition on a person's everyday life. In the light of this, we carried out an extensive qualitative study which explored the daily experiences of people with dentine sensitivity (Gibson *et al.*, 2010). The findings showed the depth and complexity of pain experiences associated with sensitivity, impacts on functional status and everyday activities such as eating, drinking, talking, tooth brushing, social interaction and also more subtle impacts on emotions and identity. Leading directly from this work, we have developed a patient-centred measure of dentine sensitivity quality of life (Boiko *et al.*, 2010). The measure has begun to be validated as an evaluative measure in clinical trials. Whilst the application of such patient-centred measures in randomized controlled trials is relatively new, our research suggests the prospects for such a measure to capture improvements in pain and other impacts are very high.

Challenges and Joys

Challenges

Any challenges I face are primarily concerned with interdisciplinary working and being a social scientist in a biologist-dominated field. There are common misconceptions or prejudices about one another (aka 'Psychology is just common sense, isn't it?'). Often we do not have a shared 'language'. Moreover, bringing together a team of people each with their own beliefs, attitudes and ways of working means there are inevitably conflicts and difficulty in achieving a coherent view or way forward. Every member of the team has separate obligations and duties which are based on their skills and discipline which come together within the team. Because everyone within the team has different strengths, the aim if the team is to successfully work together is to facilitate the expertise and insights of each member in order to address the problem or question at hand. There are therefore obligations – ethical obligations – of mutual respect within the team. As each person is representing a profession, professionalism is the key – respect for others, which means listening to others and acknowledging their viewpoint. There has to be a willingness to appreciate differing perspectives and methods; interdisciplinarity cannot work if members of the team are stuck in disciplinary attitudes (e.g. someone who advocates the 'rigour' of an RCT design might think qualitative research is the plural of anecdote). In my experience, the willingness to appreciate differing perspectives and methods is stronger in some people than others!

Joys

The enjoyment of working in a non-traditional setting far outweighs any barriers. Sometimes it may lack having another psychologist to have discipline-specific discussions with, although I have found that this can be alleviated by working with others from the psychology department or other social scientists. I have found dentistry to be uncharted territory. I can make of it what I want. There are many, many questions of relevance to oral health that psychology can help address. What dentistry gives is the potential to ask these interesting psychological questions in a different context. The change from dentists treating teeth to treating people is slow, painfully slow at times, and often infuriating, but something health psychology can contribute. This makes working within dentistry hugely interesting, academically stimulating and a challenge.

The sharing of knowledge and skills within interdisciplinary teams has allowed my own development through a critical reflection on my own beliefs and attitudes. I have learnt much from others within these teams; not only explicit things but also about implicit values and beliefs. I have learnt a great deal from others on professionalism, the nuances of conducting research in applied settings, methodologies and, in turn, what health psychology can offer by way of applied research, teaching and professional services. Most importantly, I have learnt how to work successfully as part of a team – something which is typically paid lip service to.

This all condenses into the opportunity to be a promoter for the discipline of health psychology. The sense of achievement and value you get when you have facilitated a patient-centred perspective ('patients, not teeth') in clinical practice, or in your own or others' published research or in the mission or strategy of an academic school is immensely gratifying and rewarding.

Key Debates in Health Psychology

Health Psychology and Public Health – Bridging the Gap

The title above was that of an editorial of a special issue in *Journal of Health Psychology* (Vinck *et al.*, 2004). The special issue was devoted to furthering a public health psychology (PHP) agenda, originally advocated by Tanabe (1982), in order to bridge the gap between health psychology and its focus on *individuals*, and public health's level of analysis, *populations*. To date, social and behavioural science within public health has focussed largely on individual health-related behaviours ("lifestyles"). As such, only a limited range of psychological theories and knowledge have been utilized; most notably, social cognition models such as the theory of planned behaviour. Whilst small to

modest changes in health behaviours can be made with carefully designed interventions based on such models, whether these changes are long-lasting or translate at the population level is questionable. Yet, health psychology has huge potential in helping realize public health agendas; that is, creating supportive environments, developing healthy public policy, increasing personal resources and strengthening community action (World Health Organization (WHO), *Ottawa Charter*, 1986). As contributors to the special issue note, in order to realize this potential, health psychology needs to move beyond restricted interventions targeting individual behaviours to incorporate a broader ecological approach which incorporates individual (e.g. health knowledge and actions), social (e.g. interpersonal relations), structural and environmental factors (health and public policy e.g. pricing of alcohol and healthy food). This is not to suggest that health psychologists should become social epidemiologists but rather a call for understanding and integrating both upstream (population-level) social factors and downstream psychological and biological processes, all of which influence health. Furthermore, at a professional level, health psychologists need to start working not just with individuals or target groups but also with systems and those with control over environmental determinants (e.g. local communities and politicians). To further this agenda, PHP needs to encompass and synthesize many different theories, from both psychology and public health, and adopt multilevel approaches and methodologies. Rather than being individual- *versus* population-based approaches to prevention and health promotion, we should be aiming for 'and'. The subdiscipline of PHP is fundamentally an interdisciplinary field; collaboration across health psychology and public health – rather than each discipline attempting to encompass all levels of analysis in 'their' own field. In my opinion, this is the next phase for health psychology, understanding the individual in context, multilevel approaches and interdisciplinary research and practice. By so doing, health psychologists will be better placed to address fundamental questions in relation to the *complexities* of health.

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Glossary

cleft lip and/or palate (CL/P): a congenital deformity caused by abnormal facial development during gestation.

dentistry: the branch of medicine that is involved in the evaluation, diagnosis, prevention and surgical or nonsurgical treatment of disease, disorders and conditions of the oral cavity, maxillofacial area and adjacent and associated structures and their impact on the human body (American Dental Association, 2011).

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dental public health: the science and art of preventing and controlling dental diseases and promoting dental health through organized community efforts. It is that form of dental practice which serves the community as a patient rather than the individual. It is concerned with the dental health education of the public, with applied dental research and with the administration of group dental care programs as well as the prevention and control of dental diseases on a community basis (American Dental Association, 2011).

dental trauma: injury to the mouth, including the teeth, lips, gums, tongue and jawbones.

dentine sensitivity: the sensation felt when the nerves in the teeth are exposed to the environment.

oral and maxillofacial surgery: the diagnosis, surgical and adjunctive treatment of diseases, injuries and defects involving both the functional and aesthetic aspects of the hard and soft tissues of the oral and maxillofacial region (American Dental Association, 2011).

orthodontics: the branch of dentistry dealing with the prevention or correction of irregularities of the teeth.

orthognathic surgery: surgery to correct conditions of the jaw and face related to underlying skeletal discrepancies.

restorative dentistry: the study, diagnosis and management of diseases of the teeth and their supporting structures.

xerostomia: the medical term for the complaint of dry mouth due to a lack of saliva.