Additional file 4.1 – Dental team member interview coding guide

Theoretical	Related constructs	Guiding Notes	Sample Quotes
Domain		_	
Knowledge (K)	Knowledge about the outcome/ scientific rationale Schemas and mindsets and illness representations Procedural knowledge	Explicitly stating they have knowledge, awareness or familiarity (or none) about guidance document, evidence or target behaviour. Expression of confidence or trust in the guidance document, evidence or target behaviour	 we understand the information and we can like, we take it and I may know everything [Dental Nurse] I don't know what the research is for fluoride varnish. When I was a student not all toothpastes were fluoridated so we were taught fluoride varnish techniques etc. but now virtually all toothpastes are fluoridated how many additional fluoride applications per year is the correct amount, I don't know [Dentist] there's loads of different tools that you get out there that you can use to clean in between your teeth [Dental Nurse] I would say I would probably have to look at the evidence a little bit more myself [Dentist] It's just mostly about updating our information, that's really what it's for, just keeping you up to date with everything because things change so regular, it's just basically about keeping you updated with everything so it is. [Dental Nurse]

Skills (S)	Skills Competence/ability Skill development/practice Interpersonal skills Coping strategies Skills assessment	Explicitly stating the ability to do something/an observable skill. Only code here if it is actually observable and not a perception of a skill (which makes it a capability)	Nothing coded to this domain
Beliefs about capabilities (CA)	Self efficacy Perceived competence Control of behaviour Control of environment (material & social) Perceived behavioural control Self esteem Self confidence/ professional confidence Optimism/pessimism Empowerment	Perceived ease/difficultly in carrying out the behaviour. Perceptions about their own or others competence and confidence to do a behaviour	 'I see my education as an undergraduate did help me quite well to treat caries and also prevent caries. [Dentist] 'Yes, because I think we can, we can like pass it on really good because I think we can relay it on to them [Dental Nurse] I like to think I'm quite thorough, I don't miss any cavities or anything [dentist] I feel well equipped to deal with caries and do early intervention [Dentist]

Beliefs about	Outcome expectancies	Beliefs, attitudes, and expectations regarding	>	'I don't think they, well not all patients
consequences	·	the outcomes and consequences of the		expect it from you, but I think they
(CO)	Anticipated regret	behaviour (either positive or negative) to		appreciate it when they're given it'
		both self and others.		[Dental Nurse]
	Unrealistic optimism		>	they're in there to get their teeth
	·	This can sometimes be confused with SI, need		fixed, get their mouth better
	Appraisal/evaluation/review	to be clear if it is the consequences of the		obviously, and you're giving them the
	Attitudes	behaviour on the patient/dentist (i.e.		advice to do this [Dentist]
		Consequences) or the influence of others'	>	because if you prevent it then you
	Beliefs	behaviour/attitudes on the professional (i.e.		don't even need to like deal with the
		Social influence)		whole other situation. So if you can
	Contingencies			stop it before it even happens then
	- Construction of the Cons	Things like a rapport with the patient comes		using, like basically that helps them in
	Reinforcement/punishment/consequences	under SI as it makes it easier to do the		other areas of life as well, because
	The market services of the ser	behaviour (it is not a consequence of the		obviously it's Ok to come in and get a
	Incentives/rewards	behaviour itself, and therefore does not come		filling, but if you can tell them how to
	co.netros, remaras	under CO.)		stop getting them [Dental Nurse]
	Salient events, critical incidents, sensitisation	and conf	>	'I will do it in cases where I think it
			ŕ	might be beneficial' [Dentist]
	Characteristics of outcome expectancies		>	I think the amount of cases of nursing
	include – physical, social, emotional;			multiple caries I have seen it's
	proximal/distal, valued/not valued,			definitely, definitely decreasing
	likely/unlikely, risk/reward; salient/not salient			because mothers are definitely getting
	incry, animory, risky reward, suiterry not suiterre			the information they need now rather
				than leaving it too late until the child is
				two or three [Dentist]
			>	The cost/benefit isn't clear to me at
				all. And the evidence, again, I don't
				know. I'd understand the logic of
				fissure sealant but is the benefit from
				fissure sealant so great as to allow the
				use of that much time? [Dentist]
				ase of that mach time: [Dentist]

Motivation, goals, intent (MI)	Intention: stability/certainty	Want or desire to carry out the behaviour.	'Obviously we're wanting to give them any advice or anything possible to
	Goals (autonomous/controlled)	Prioritising it above other behaviours.	obviously try and prevent this. So anything like really is really important
	Goal target setting	Intention to perform the behaviour	to say to them and give them advice on' [Dental Nurse]
	Proximal and distal goals		I'm not going to interfere with that [Dentist]
	Intrinsic motivation		[201100]
	Commitment		
	Stages of change		
	Goal priority		
Memory,	Memory	Attention/remembering to perform a behaviour	 No, sometimes, sometimes you remember, but obviously you're not
decision making (MAD)	Attention	Schaviour	going to remember with everybody' [Dental Nurse]
(IVIAD)	Attention control		[Dental Nuise]
	Decision making		

Environmental	Resources (material, temporal, spatial,	Factors relating to the surgery which	> \	we've ordered in leaflets for the waiting
context,	personnel): availability	influence whether or not a behaviour is being	r	room just for patients, and they do like
resources,		carried out (e.g. availability of time, space,	{	go down, you do see people taking
constraints (E)	Resource management	staff, equipment etc.)	t	them, so I think it does help [Dental
, ,			1	Nurse]
	Environmental stressors	If there is a high burden of caries this is coded	> I	If the surgery was a wee bit bigger you
		here as this has an impact on time available to		could probably get round to the patient
	Person x environment interaction	do prevention		and speak it's really hard to do, it is
		· ·		really quite wee, so you're actually
	Knowledge of task environment			squeezing passed the dentist to do stuff
				[Dental Nurse]
			> i	I'd say a wee bit more time. Like if you
				had longer for each patients for
			á	appointments I would say it'd be a lot
			(easier, because sometimes if they're in
			f	for their fillings and things like that
			t	then you've got half an hour, you've
				done your fillings and you kind of, "I've
			(done this, that, there" and then they
			8	go. So if you did have maybe a wee bit
			ĺ	longer to spend time with patients you
			(could go over all this a lot more I would
				say, yes definitely [Dental Nurse]
			> '	obviously their appointments times
			9	sometimes are no long enough' [Dental
			1	Nurse]
			> i	is like classed as a deprived area, so
			Y	you are getting a lot of patients that
			á	are coming in from the kind of
			ŀ	backgrounds that are, that's like really
			t	they're going to have caries really
			[[Dental Nurse]

Social and	Identity	Professional identity (role, responsibilities	'any questions asked, we're willing to
Professional Role	,	boundaries, obligations)	answer them, so we don't mind people
and Identity (SPI)	Professional identity/boundaries/role		asking us questions really' [Dental
	,	Perception of own role within context of the	Nurse]
	Group/social identity	practice/dental team (e.g. dental nurses	the dentist has probably already said
		feeling disempowered)	to them, so we would be again just
	Social/group norms		probably repeating it [Dental Nurse]
		The point with this is that it is things intrinsic	the dentist would normally do
	Alienation	to the person, their perception of themselves	obviously all the rest of the talking and
		as a particular professional role	the rest of the work [Dental Nurse]
	Organizational commitment		I see myself as primarily as a repairer
			of teeth. I feel prevention should be
			done in the communities [Dentist]
			I think sometimes it's more difficult
			than others obviously because you're
			not seeing inside their mouth, when
			they come for a check up, the dentist is
			doing the examination and you're
			charting, so it's not like I can turn
			round and say, "Well you're going to
			need two fissure sealants", obviously
			because I'm not at the clinical side
			doing it. So really I just feel that that's
			the dentist [Dental Nurse]

Social Influences	Social support: inter-personal, professional,	Views & behaviour from people from out with	>	'I think, well normally they'd ask, if
(SI)	organizational, society/community	the practice (e.g. patients, Childsmile) which		they've asked for it, then I think that's
		alters how a behaviour is done (or not done).		easier obviously' [Dental Nurse]
	Social/group norms		>	'they'll talk about it but quite often
		Other people expecting or not expecting the		won't follow through. You can see that
	Organizational climate, culture	behaviour.		same child two weeks later somewhere
	Organizational development			else and they're swallowing Irn Bru'
	Organizational commitment	Other people influencing (facilitating or		[Dentist]
		inhibiting) the behaviour	>	I'm generally led a little bit by gut and
	Management, change management			how I think the patient's responding –
		Observation of the behaviour in others		especially the kind of fluoride and
	Resource management	influencing own behaviour		advice kinda side of it, I'm a bit more
	l			patient-led and things [Dentist]
	Leadership	In contrast to SPI, this domain includes things	>	But we've gotten varnishes recently
	Tanana di anglist anno ation	external to the person, not their perceptions		because the Duraphat we were finding
	Teamwork, conflict, competing	of their role but other people's attitudes and		that children didn't like the taste so
	demands/roles	behaviour having an effect on the person's ability to carry out the behaviour.		much and they were spitting it out so
	Supervision, feedback	ability to carry out the behaviour.		we got different flavours like caramel, melon, cherry, like all the nicer flavours
	Supervision, reeuback	So far the coding has identified social		so children tend to respond to them a
	Learning and modelling	influence mainly in terms of the influence of		little bit better [Dentist]
	Learning and modelling	the patients rather than management etc.	>	and we do have some kids that you've
	Champions, role models	the patients rather than management etc.		given it to numerous times and they
	Professional boundaries, roles			take none of it on board and they don't
	,			change anything (overspeaking) you
	Inter-group conflict			can give them tooth brushes,
				toothpaste, everything away with them
	Social comparisons			and they never seem to use it. It just
				depends whether they actually listen
	Negotiation			to what you say or whether they don't
				[Dental Nurse]
	Group/social identity, conformity, alienation			
	Social pressure			
	Power, hierarchy			

Emotion (Em)	Affect: positive, negative Stress Anticipated regret Fear Overload, fatigue, burn-out Perceived threat Anxiety, depression	Emotional benefit /risks in doing a behaviour, such things as indifference, there being no reward for doing behaviour	<i>></i>	'you just feel it's a waste of time trying to help them and giving them advice. But if somebody is willing to listen, take the advice on board, then obviously you enjoy giving them advice and things like that' [Dental Nurse] That always makes you feel a little bit better and like you are getting through to them [Dentist]
Behavioural Regulation (BR)	Goal, target setting Implementation intention Moderators of intention-behaviour gap Action planning	Ways of working that make it easier to carry out the intended behaviour at either the individual or organisational level. Things people do to help themselves perform the behaviour/make the behaviour easier	>	I would generally read it and because we don't have a designated Childsmile nurse at the moment I would probably do most of the stuff myself but there's another dentist here that we would chat about it and say, "What will we do?" [Dentist]
	Generating alternatives Self-monitoring	Routines and systems (formal or informal) associated with the performance or modification of a behaviour	>	obviously you do need to measure things and you do need to see are you doing the right thing and are there things we can improve [Dentist]
	Prioritizing	Strategies to facilitate and support behaviour, modify an existing behaviour, or introduce a	>	And I've stopped doing fluoride drops for some years when the first evidence
	Feedback Project management	new behaviour		was coming out that topical application is much more effective [Dentist]
	Barriers and facilitators			

Nature of the Behaviour (NB)	Routine, automatic, habit	A description of what the person generally, currently tends to do;	So adults, if a new patient was to come for a check-up we usually, again,
, ,	Breaking a habit		categorise if they have low, medium or high caries risk' [Dentist]
	Direct experience, past behaviour		 we'll just tell them like basically, break it down into simple like "The sugar's been
	Stages of change		eating away at your teeth and it's going to cause you pain if you don't get it done", and you just basically tell them, then we break it down further and say "You need to watch your teeth' [Dental
			Nurse]
			we do fissure seals as well actually, that's another thing for all kids between six and seven, we'll just assess them for fissure sealants. If they're part erupted I'll leave
			it for another six months but generally they'd all get fissure seals done which generally prevents decay [Dentist]
			I tend to not do as many fissure sealants as when I was first qualified [Dentist]
			It tends to be new patients. Or if they haven't been in for a little while. Or like with a previous patient I'll ask like, "Do
			you know how to floss? Have you been shown how to floss?" [Dentist]

Coding notes:

- 1. Don't code if they are talking about decontamination guidance as that is not what we are interested in
- 2. Code for current practice not talking about the way things have been done in past or ideas for the future (these can go in ideas for improvement node)

Additional file 4.2 – Patient feedback coding guide

Behaviours		
BWR	Bitewing radiographs	
FS	Fissure sealant	
FV	Fluoride varnish	
DOHM	Demonstration of oral health maintenance – demonstrated oral health maintenance by a health care professional, either on a model or on the patient	
ОНІ	Oral health instruction – specific advice about oral health maintenance without demonstration	
ОНМ	Oral health maintenance – patients' routines, behaviours for keeping teeth/mouth healthy	
FB	Feedback – feedback patients have given to their dentist or other health care providers	
Adv	Advice – general information and recommendations patients receive from the dentist or other health care providers	
Domains		
К	Knowledge – patient knowledge	
Co	Consequences – beliefs about benefits of care, barriers/facilitators to care	
Em	Emotions – patient feelings	
SI	Social influence – what patients expect in going to the dentist or other health care providers	
SPI	Social professional role and identity – Patient perceived roles and responsibilities of health care professionals (both oral and general health)	
NB	Nature of the behaviour – descriptions of oral health care and activities	
Additional	·	
Imp	Improvement – patient suggestions for improvement	
PR	Personal responsibility – patient perceptions of their role/responsibility for oral health	