Title: Barriers and facilitators to using an objective risk communication tool during primary care dental consultations: A Theoretical Domains Framework (TDF) informed qualitative study

Abstract

Objectives: Objective risk-communication tools can supplement clinical judgement and support the understanding of potential health risks. This study used the Theoretical Domains Framework (TDF) to identify barriers and facilitators to implementing a risk-communication aid within primary care dental consultations.

Methods: Dentists (N = 13), recruited via a dental practice database and through professional contacts. They were interviewed using a TDF-informed semi-structured interview schedule. Data were analysed inductively and deductively, coding the themes using the TDF.

Results: Eight theoretical domains (environmental contexts and resources; beliefs about consequences; goals; memory, attention, and decision processes; optimism; reinforcement; social influences and behavioural regulation) and thirteen sub-themes were identified. Insufficient resources and patient factors were commonly encountered barriers and led to increasing pressure to prioritise other tasks. Whilst dentists had a favourable view towards a risk-communication aid and acknowledged its benefits, some were sceptical about its ability to facilitate behaviour change. Self-monitoring strategies and colleague support facilitated tool usage.

Conclusions: This study identified six barriers and seven facilitators to implementing a risk-communication tool within primary care dental settings. Dentists appreciated the value of using a risk communication tool during dental consultations, although some required further support to integrate the tool into practice.

Clinical significance: Our findings provide a sound theoretical base for interventions aimed at facilitating risk communication in dentistry. Further research should apply behavioural science to support the implementation of the tool in clinical practice.

Introduction:

A lot of the success behind good oral health relies on a partnership between dentist and patient, with the patient expected to engage in behaviour change once they leave the dental surgery [1]. One method available to healthcare teams to support behaviour change is the communication of disease risk [2]. Personalised risk communication can help facilitate oral hygiene-related behaviours among patients [3] and improve clinical health outcomes [4].

Whilst communication is important, research suggests that the clinical judgement of risk is not always reliable [5]. Using objective risk-calculators can enhance clinical opinion and support the communication of potential health risks [5]. An example of an objective calculator is the Denplan Excel Previser Patient Assessment (DEPPA) tool which is available to EXCEL-approved dentists (a certification programme for those registered with the insurance company, Denplan) [6]. DEPPA is an empirically validated instrument that assesses a patient's disease risk based on clinical parameters, medical and dental history, and lifestyle factors [6,7]. Patient-completed questionnaires and routine clinical information are combined into a risk output that reflects a patient's current health state and future risk of oral cancer, non-carious tooth surface loss, dental caries, and periodontal disease [6]. Risk scores, graphs and a Red-Amber-Green (RAG) reporting system aid presentation to patients [7]. Previous research suggests that DEPPA is a highly acceptable way to facilitate communication during consultations [8].

Studies seeking to support periodontal disease patients have shown that risk-communication tools, such as DEPPA, can support patient behaviour change [3,4]. However, whilst some practitioners may perceive a risk communication tool as an invaluable communication aid [6], anecdotally, they are not routinely implemented in clinical practice. Barriers and facilitators to communicating risk within dental consultations have been identified previously [9]. It appears that practitioners may not possess

the necessary skills or training, and their efforts to routinely risk-assess may be hindered by patient and system factors [9,10]. Dentists face similar challenges when delivering patient-centred care [11]. Whilst practitioners understand the importance of tailored, person-centred care, they perceive money, time, and disengaged patients as significant barriers to its delivery [12].

Recent advances in behavioural science have led to the development of the Theoretical Domains Framework (TDF) [13]. The TDF is a system of fourteen theoretically grounded domains which can influence behaviour [13]. TDF domains can be mapped onto the Behaviour Change Wheel [14] and be used to understand clinical practice implementation barriers [15] e.g. dentists' carious tissue removal behaviour [16], smoking cessation counselling [17], fluoride varnish application [18] and bacterial infections management [19]. To our knowledge, little research has been undertaken to explore the barriers and facilitators to implementing an objective risk communication tool within dental consultations. Given the importance of preventative dental care, further research is required to assess barriers and facilitators among dentists to utilising a risk communication tool during patient consultations.

A recent narrative review on the use of the TDF in oral health [20] suggested that the TDF be used in its entirety in assessing implementation barriers. This is one of the first empirical studies, in the context of oral health and dentistry, to target all fourteen theoretical domains within the framework. In this study, dentists were interviewed about their use of a specific risk-communication tool, DEPPA, as a means of addressing the following research question:

What barriers and facilitators do dentists perceive to using a risk communication tool during primary care dental consultations?

Materials and methods

This study is reported following guidance from the COnsolidated criteria for REporting Qualitative research (COREQ) Checklist (Supplementary file 1). We purposively recruited UK dentists working within Denplan primary care settings with access to DEPPA, using a dual recruitment strategy: (1) personal contacts and (2) via an existing database of practices with access to DEPPA. All eligible dentists (N = 690) were invited to participate via e-mail invitation by Denplan. Interested participants contacted the researcher, consenting, and arranging a convenient time for the interview.

Following ethical approval (1920/RPI/DSMHB), approximately forty-minute-long, one-to-one telephone or video-call, semi-structured interviews were conducted during May/June 2020 using an interview schedule informed by TDF guidelines [15], validated TDF questionnaires [21] and published interview schedules [22]. The schedule, although not piloted, was checked by a dentist who provided written feedback prior to use. All fourteen TDF domains were included, with supplementary prompts where necessary. The interview explored (i) dentists' perceptions of the tool and (ii) any barriers or facilitators to its use. The interviewer (DM), a female, non-clinical, postgraduate health psychology student had no prior relationship with participants and was independent of Simply Health. Participants were informed that the study was being conducted in part fulfilment of the co-authors (DM) MSc degree.

Basic field notes were completed. Interviews were audio-recorded, transcribed verbatim and all identifiable data removed from the transcripts. A two-stage inductive and deductive approach [23] was used; transcripts were analysed thematically by DM, following the standard five-stage process [24] and quality issues identified by Braun and Clarke [25]. Text was coded as a barrier or facilitator when (i) participants explicitly stated that the factor influenced their usage, or (ii) when there was variation in the behaviour or beliefs reported. A sub-set of transcripts (25%) were coded by a second researcher independent of the study. When codes were saturated, broader categories (themes) were generated.

Themes were then extracted and deductively coded into the TDF using Cane et al's (13) domain descriptions (Table 1). Data saturation occurred at transcript 11 when no further barriers or facilitators could be identified.

---------- Table 1 about here ----------

Initial interpretations were confirmed through a second coder, independently coding the final themes into the TDF using the coding framework. The list of TDF domains was then compared to those of DM. Where differences arose, or where a theme could be coded into multiple domains, consensus was reached through discussion.

Results

Of twenty-one respondents, thirteen were interviewed (eight participants either decided not to continue with the study or failed to answer emails after the initial correspondence). Twelve participants were recruited through the email advertisement and one via personal contacts. To reduce bias in the final analysis, one participant was excluded due to their central role in developing DEPPA. Participants (*N* male/female = 5/8) had an average of twenty-two years' experience within dentistry (range 10-31 years).

Table 2 presents a summary of themes and theoretical domains.

--------- Table 2 about here ----------

A total of six barriers and seven facilitators were generated in the primary analysis. Inductive themes were coded into eight theoretical domains. A list of barriers/facilitators and illustrative quotes (in brackets: participants' numbers) appear in Table 3 with extracts incorporated into the theme

descriptions below. An attempt was made to ensure that all participants were adequately represented when selecting quotes.

------ Table 3 about here ------

1 | Environmental context and resources

1.1 | Time constraints (barrier)

Participants described time as a limited resource which prevented them from routine tool use. Some dentists described the tool as "time-consuming" (D9) and preferred to use alternative risk assessment strategies as they were "quick and easy to do" (D10). Interestingly, even if they completed an assessment, some dentists reported not discussing the output with their patient (Theme 1.1, quote C):

1.2 | Software incompatibility (barrier)

This was the most commonly reported barrier. Participants frequently reported their routine dental management software not smoothly integrating with the risk communication tool. Therefore, in order to complete an assessment, all clinical data had to be entered manually. Practices with incompatible software were unable to use Clinipads to collect patient data in the waiting area. This required dentists to expand appointment times, which was a barrier to tool use.

2 | Reinforcement

2.1 | Using the tool to maintain professional accreditation (facilitator)

Dentists must comply with specific regulations to maintain their professional certification. They should complete an oral risk assessment for each patient and utilising the tool helps satisfy this requirement. Most participants reported no incentives to using the tool other than to maintain their professional certification (See theme 2.1, quotes A-C). Many described how an upcoming registration audit encouraged tool use:

> "I hardly use it, and then every time I come round to my inspection…….I suddenly think "oh I haven't done enough" [tool use] and we all try and sit down and do more" (D6)

3 | Beliefs about consequences

Participants reported three positive consequences (facilitators) of using the risk communication tool. Most participants had a favourable view of the tool and believed that it could be beneficial for both patient and practitioner.

3.1 | Belief that the tool facilitates risk communication (facilitator)

All dentists reported how a risk communication tool facilitated prevention discussions. Participants referred to the tool as a "guide" which included questions they "never thought to ask" (D11). Dentists were particularly in favour of the visual Red-Amber-Green (RAG) reporting system because they felt it enabled patients to better understand their risk of disease (theme 3.1 quote A).

3.2 | Belief that the tool enables a comprehensive assessment (facilitator)

Participants frequently described using the tool as a means of avoiding litigation. Tool use ensures that dentists have completed a thorough and comprehensive examination and is a useful way to legally document a patient consultation. This appeared to be an important motivator:

"A lot of it, I'll be very honest, is trying to prevent being sued. So, that you know that if you do your [tool] form, you've done a comprehensive exam." (D2)

3.3 | An evidenced-based assessment which reduces dentist-patient conflict (facilitator)

Participants described everyday challenges with patient management and encouraging patients to take accountability for their oral health. Dentists further discussed using the tool to add credibility to their clinical judgment (Theme 3.3, quotes A-B). Participants reported that tool use enabled difficult conversations with those patients who may have been less receptive to advice by enabling dentists to distance themselves from bad news, making any criticism appear less personal:

> "You're using this as a tool to show them 'well, this is what this system has found, it's not me telling you off directly". (D13)

4 | Social influences

4.1 | Colleagues and management influence tool usage (facilitator)

Peer support was a facilitator; participants described how colleagues and management had a positive influence on their own behaviour, encouraging them to use the tool (Theme 4.1, quote A). This was particularly the case for participants whose practice managers were advisors for an insurance programme.

5 | Memory, attention, and decision processes

5.1 | Perception that tool use is less useful for low-risk patients (barrier)

Dentists described patient selection as critical when deciding whether to use the tool. Participants were more likely to use the tool with high rather than low-risk patients, where they perceived no added benefit (theme 5.1, quote A). Tool use was also reported to be reserved for sceptical patients:

> "If a patient is really open and receptive to any sort of advice or constructive criticism, then, erm, it's not that helpful on top of my normal procedures" (D5)

5.2 | Lack of patient cooperation as a reason not to use the tool (barrier)

Although many participants reported high patient acceptability of the tool, some suggested that lack of patient engagement influenced their decision not to use it. Some patients were deemed uncooperative by refusing to complete patient forms (Theme 5.2, quote A). Others highlighted that when risk scores were simply communicated rather than used to open behaviour change conversations that inadvertently impaired the practitioner-patient relationship:

> "…Somebody turned around……and said "oh you're always having a proper go at me! I'm never good enough, no matter what I do!"……and I'm like 'You know what I think? I'm going to stop telling people their oral health scores unless they ask'….." (D6)

6 | Optimism

6.1 | Scepticism as to whether the tool can facilitate behaviour change (barrier)

There were discrepancies in the extent to which dentists believed that risk communication tools could facilitate behaviour change. Some dentists described the tool as critical to their practice, increasing behaviour change among patients (theme 6.1, quotes A-B). Others were unaware of how the

tool may facilitate behaviour change and were less confident in its ability to promote positive oral health practices (Theme 6.1, quotes C-E).

7 | Goals

7.1 | Perceived as a low priority task (barrier)

Dentists are required to complete many clinical tasks during a dental consultation. Some dentists reported that their primary concern was ensuring that the consultation met patient's expectations, and often this did not include providing behaviour change advice or discussing a patient's risk assessment. Participants discussed various tasks which took priority over risk assessment:

> "Routine radiographs and dealing with any toothache problems, dealing with a tooth that I think 'hmm that's gonna need a crown'……I spend [the] majority of my time just explaining things to patients…..so, unfortunately it [the tool] usually comes down at the bottom [of my] list." (D6)

7.2 | Scheduling and integrating the tool into routine practice (facilitator)

Dentists who described themselves as regular users of the tool had strong personal beliefs regarding the importance of using it. These dentists scheduled specific time into their appointments (Theme 7.2, quote A) building the consultation around the tool:

> "As I said, we've built our practice around the [the communication tool] result ……we use a template, and the template is based on the [tool] questions so I know that I don't miss anything out, so I find it quick" . (D2)

8 | Behavioural regulation

8.1 | Self-monitoring tool usage (facilitator)

Self-monitoring tool usage was reported as a facilitator. Some participants tracked patients' notes to remind them when the next assessment is due (Theme 8.1, quote A). Whilst others described how a reminder system would help prompt them to use the tool:

> "I think that would help us make sure. So have a pop-up note saying 'last [tool use] was done on this date'……it would be easy to add so we know it's done regularly then." (D13)

Discussion

This study used the TDF to identify barriers and facilitators to implementing a risk communication tool during primary care consultations and highlights broader issues surrounding the communication of risk in dental settings. Using a two-stage analytic approach, we identified thirteen themes and eight theoretical domains which influence the use of a risk communication tool by dental teams: environmental contexts and resources; beliefs about consequences; social influences; optimism; reinforcement; behavioural regulation; goals; and memory, attention, and decision processes.

Dentists discussed factors they believed influenced their ability to use the tool. The domain *'environmental contexts and resources'* was central to the participants' accounts. In line with previous studies exploring implementation barriers to risk communication and the delivery of behaviour change support within dental [9,17] and medical [26–28] settings, time, insufficient resources, and workload pressures were frequently-cited reasons for not using the risk communication tool. Software non-integration posed further challenges (behavioural regulation), leading to time constraints, and increasing

pressure to prioritise other tasks. These findings suggest that tool use would be more widely accepted if it was integrated into existing practice management systems. Addressing one domain (e.g., *'environmental contexts and resources'*) may help overcome the barriers identified under several other TDF components (e.g. 'goals').

Consistent with Busby et al [6], participants had a favourable view towards a risk-communication tool, which was described as evidence-based, enabling a comprehensive examination and facilitating risk communication (beliefs about consequences). However, motives for using it (e.g., as a litigation protection tool) were often at odds with the true purpose of the tool (a behaviour change conversation opener), with some dentists being sceptical about its utility in this regard (optimism). Perceived workload and time constraints meant that sometimes assessments were not discussed with the patient. Dentists did not give priority to using the tool, particularly when time was limited, or unscheduled treatments were required. Further work to develop solutions to overcome barriers through the application of behaviour change theory to identify behaviour change techniques is needed.

Patient factors also influenced dentists' decisions to use the tool. These are known to influence dentists' treatment decisions [19,29] and their perceived ability to communicate with patients [11]. Providing behaviour change advice is also dependent on the patients' level of engagement, motivation, and cooperation [28,30]. Nevertheless, participants were motivated to use the tool in order to maintain their professional accreditation (reinforcement), with peer support from colleagues and management seen as a further route to support tool usage (social influences). Peer support has previously been reported to facilitate the delivery of behaviour change advice within dental consultations [31].

By using the TDF inductively and deductively to assess implementation barriers to using a risk communication tool in routine clinical practice, this multidisciplinary-led study provides a sound theoretical base for future interventions aimed at facilitating risk communication. In line with Buchanan

et al's [20] recommendations, the present study targeted all fourteen TDF domains, rather than using a sub-set.

There are also limitations to this study. Future research should supplement participants' self-reports of familiarity with the risk communication tool with objective data on tool use. A non-self-selecting sample would help with generalisability considerations, as it is possible that those with strong views about the tool would have been more likely to take part. Moreover, our participants were experienced clinicians; barriers may differ among those with less experience. Finally, as data were collected at the beginning of the UK's first COVID lockdown, it is possible that this may have influenced dentists' perceptions of the tool and of the importance of preventative dentistry. For example, recruitment commenced only a few days prior to dentists re-opening their practices, which may explain the low response rate.

Conclusions

Six barriers (environmental contexts and resources; memory, attention, and decision processes; optimism; and goals) impact the implementation of a risk communication tool routinely. Practically integrating a risk communication tool into practice, adopting a mutually supportive environment, emphasising the benefits of the tool over and above litigation avoidance, and by supporting dentists with commonly encountered barriers, for example, lack of time would enable further use. This study highlights the specific challenges dentists face when communicating risk in primary practice and paves the way for future research applying behaviour change theory to support dental teams.

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Table 1

Table 1. The Theoretical Domains Framework (13)

Theoretical Domain	Definition
Knowledge	An awareness of the existence of something
Skills	An ability or proficiency acquired through practice
Social/Professional Role and Identity	A coherent set of behaviours and displayed personal qualities of an individual in a social or work setting
Beliefs about Capabilities	Acceptance of the truth, reality, or validity about an ability, talent, or facility that a person can put to constructive use
Optimism	The confidence that things will happen for the best or that desired goals will be attained
Beliefs about Consequences	Acceptance of the truth, reality, or validity about outcomes of a behaviour in a given situation
Reinforcement	Increasing the probability of a response by arranging a dependent relationship, or contingency, between the response and a given stimulus
Intentions	A conscious decision to perform a behaviour or a resolve to act in a certain way
Goals	Mental representation of outcomes or end states that an individual wants to achieve.
Memory, Attention and Decision Processes	The ability to retain information, focus selectively on aspects of the environment and choose between two or more alternatives

Environmental Contexts and Resources	Any circumstance of a person's situation or environment that discourages or encourages the development of skills and abilities, independence, social competence, and adaptive behaviour
Social Influences	Those interpersonal processes that can cause individuals to change their thoughts, feelings, or behaviours
Emotion	A complex reaction pattern, involving experiential, behavioural, and physiological elements, by which the individual attempts to deal with a personally significant matter or event
Behavioural regulation	Anything aimed at managing or changing objectively observed or measured actions

Table 2

Table 2: Summary of themes and theoretical domains

Theoretical Domain	Theme (Barrier/Facilitator)
Behavioural Regulation	Self-monitoring tool usage (F)
Memory, Attention and Decision Processes	Lack of patient cooperation as a reason not to use the tool (B)
	Perception that the tool is less useful for low-risk patients (B)
Environmental Contexts and Resources	Time constraints (B)
	Software incompatibility (B)
Social influences	Colleagues and management influence tool usage (F)
Beliefs about consequences	Belief that the tool facilitates risk communication (F)
	An evidenced-based assessment which reduces dentist-patient conflict (F)

	Belief that the tool enables a comprehensive assessment (F)
Goals	Perceived as a low priority task (B)
	Scheduling and integrating the tool into routine practice (F)
Optimism	Scepticism as to whether the tool can facilitate behaviour change (B)
Reinforcement	Using the tool to maintain professional accreditation (F)

Table 3

Table 3: Summary of themes (barriers/facilitators) and illustrative quotes.

Theme	Illustrative quote
1.1 Time constraints (barrier)	**A** "That is potentially the reason why I didn't go onto [the tool] because at the time I just thought, you know, it's just all about saving a bit of time" (Participant D1) **B** "My part of it [the tool] was a little time consuming to go through all the questions" (Participant D9) **C** "I just usually give it [the tool report] to them. I know I should go through it with them, but this is where the time constraints come in" (Participant D3)
1.2 Software incompatibility (barrier)	**A** "The intention in the long run is that it [the communication tool] becomes part of the clinical examination, erm, but until it's integrated into the computer system that I use then I really can't see it happening" (Participant D6) **B** "I haven't used [the tool], I did have two attempts……the reason for that is you need to import it. It's not integrated into our computer system" (Participant D9)

	C "It would be good if we could embed [the risk communication tool] globally into lots of computer systems, to make it easier to use, and I think if we could do that it would be accepted by more dentists" (Participant D10) **D** "One thing that would make it a lot easier for us is if we could get [the tool] on the clinipad, but I understand that's a compatibility issue with SOE" (Participant D5)
2.1 Using the tool to maintain professional accreditation (facilitator)	**A** "The only time we are encouraged is because we know that we might not maintain [professional certification] if we don't do them" (Participant D3) **B** "Because we're part of the Excel accreditation programme, it's [the risk communication tool] something that we are encouraged to do" (Participant D13) **C** "If you are [part of certification programme] you are meant to do it, aren't you? So, to keep [that] up" (Participant D11) **D** "I hardly use it, and then every time I come round to my inspection……I suddenly think "oh I haven't done enough [of the tool]" and we all try and sit down and do more" (Participant D6)
3.1 Belief that the tool facilitates risk communication (facilitator)	**A** "…[the tool] helps me communicate the patients' risk to them…that visual sort of red flashing up saying 'high cancer risk' really hits the message home a little bit" (Participant D5) **B** "Yes again, just patient communication. It [the tool] helps me sit in front of patients and talk to patients more" (Participant D7) **C** "It [the tool] gives you a definite guide to talk through with your patients about their oral health needs" (Participant D10).

3.2 Belief that the tool enables a comprehensive assessment (facilitator)	**A** "A lot of it, I'll be very honest, is trying to prevent being sued. So that you know that if you do your [risk communication] form, you've done a comprehensive exam" (Participant D2) **B** "Basically, it in a way gives you cover for a patient saying in the future "oh, you never told me about that!". It all comes down to note taking and doing tick boxes" (Participant D1) **C** "It looks good on the records for the patients, you know, for legal reasons" (Participant D5) **D** "…. covering our back indemnity wise… we can say that we have done it [the risk communication tool]" (Participant D6).
3.3 An evidenced-based assessment which reduces dentist-patient conflict (facilitator)	**A** "It's not just my opinion, if the computer says they need to do it [change their oral health behaviour] they might be more liable to do it instead of the dentist" (Participant D11) **B** "It is, you know, based on research and you can turn around and say, "well look, it's not just me saying this" (Participant D8) **C** "You're using this as a tool to show them 'well this is what this system has found, it's not me telling you off directly'" (Participant D13)
4.1 Colleagues and management influence tool usage (facilitator)	**A** "She [colleague] guilts me into taking, to try and do more [of the risk communication tool]. So, in some ways it's positive to do it with someone…if there was nobody else here, I probably wouldn't do any" (Participant D6) **B** "The people I worked with weren't convinced and I never looked at it [the tool]. I then moved to a practice where my boss is a Denplan inspector….so basically it was a case of "you are going to use it for every patient"" (Participant D11). **C** "In and amongst the practice we encourage each other to keep going with it [the risk communication tool]" (Participant D5)

5.1 Perception that the tool is less useful for low-risk patients (barrier)	**A** "If they're scoring low risk in the four categories and they've got 96/100, I'm thinking, 'what's the point in doing it in two years' time?'. I might extend the interval" (Participant D2) **B** "If a patient is really open and receptive to any sort of advice or constructive criticism, then, erm, it's [the tool] not that helpful on top of my normal procedures" (Participant D5) **C** "If I don't feel as though there is any major risk, if there is, you know, pretty good oral hygiene and they come regularly.... I kind of feel they are okay. They can read it [the risk communication report] if they want to, but they aren't a particular risk for me" (Participant D3)
5.2 Lack of patient cooperation as a reason not to use the tool (barrier)	**A** "...yeah sometimes I get it in the neck saying "well I can't be bothered with that" or "who sees this?".....yeah, there's some people who will not use anything IT because they think they're being watched by other people. As I say patient selection is critical" (Participant D8) **B** "...Somebody turned around.....and said "oh, you're always having a proper go at me! I'm never good enough, no matter what I do!".....and I'm like 'You know what I think? I'm going to stop telling people their oral health scores unless they ask'....." (Participant D6) **C** "Sometimes patients don't want to put the extra effort in, you know.... trying to get them to fill out forms is really hard" (Participant D1)
6.1 Scepticism as to whether the tool can facilitate behaviour change (barrier)	**A** "...Because I've given them the right information and extensive information how they can improve their health. Then usually when they're coming back the second time they're doing the right things, they've listened, and some patients like to try and improve their score" (Participant D10)

	B "People do come back and say, "when you went through all of that [the risk communication report], I've stopped doing it now, I've changed everything" (Participant D11) **C** "I think it [the tool] opens up a conversation. I think that's about the limit of it really" (Participant D12) **D** "I give them the leaflet that Denplan give on [the tool].....but I genuinely think most of it's probably put straight in the bin or certainly at the bottom of a handbag.....yeah, trying to change patient behaviour is also an interesting one." (Participant D8) **E** "I think the patient information leaflet is good, but again it's.... I don't know how much, because of where I work, I don't get much behaviour change" (Participant D2).
7.1 Perceived as a low priority task (barrier)	**A** "Routine radiographs and dealing with any toothache problems, dealing with a tooth that I think 'hmm that's gonna need a crown'.....I spend [the] majority of my time just explaining things to patients. So, unfortunately it [the tool] usually comes down at the bottom [of my] list." (Participant D6) **B** "Erm, it [the risk communication tool] comes fairly down the list I'm afraid" (Participant D12) **C** "...If I've got a lot of other things on then it [the tool] does get pushed down the priority list for sure, you know, it's on my 'should do' list, not my 'must do' list" (Participant D5)
7.2 Scheduling and integrating the tool into routine practice (facilitator)	**A** "They [patients] will be booked in for a DEPPA exam which is longer than a routine exam." (Participant D7) **B** "As I said, we've built our practice around the [the tool] result and doing the [tool].....we use a template, and the template is based on the questions, so I know that I don't miss anything out, so I find it quick" (Participant D2)

	C "…What I try and do is combine it [the tool] with a routine check-up" (Participant D10)
8.1 Self-monitoring tool usage (facilitator)	**A** "I will record in my patients' notes when I've done [the tool], and we have a little pop-up note to say when I've done it, erm, so then it'll remind me" (Participant D10) **B** "I think that would help us make sure. So have a pop-up note saying 'last [tool use] was done on this date'. It would be easy to add so we know it's done regularly then." (Participant D13)

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