# Opportunities For Alcohol And Other Drug Advice In The GP Consultation

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## Executive summary

### *Introduction*

The health consequences of alcohol use, smoking and illicit drug use are considerable and the NZ Government has duly placed emphasis on this with initiatives including the National Drug Policy 2007 – 2012, the NZ Health Strategy 2000, the NZ Alcohol Strategy. Substance use control features directly in two of the six current NZ Health priorities and indirectly in two others (diabetes and cardiovascular disease).
Primary Care is the interface where Government policy public health initiatives are implemented at a personal health level guided by the Primary Care Strategy 2002.
Primary Care is regarded as best placed to address alcohol and other drug (AOD) screening, problem recognition, early intervention and general management.
Cigarette smoking and drinking alcohol are very visible in society and although they represent legal substance use they still carry significant social stigma; in contrast illicit drug use can remain hidden despite immense personal and social consequences.
There are numerous clinical guidelines and tools available, many specifically designed for General Practitioner (GP) detection and management of AOD problems.
Yet, despite this, problematic substance use exists undetected in the community.
AOD abuse and dependencies are by nature chronic and relapsing and therefore substance abuse should ideally be considered as part of health encounters even in the absence of a significant past history. However, there is little published research internationally, and to date none from NZ, using interactional data to analyse how AOD related issues are actually negotiated in the GP consultation.

### *Objectives*

This study explores opportunistic AOD interactions between patients and GPs in a sample of recorded primary care consultations to better understand the following questions:

(i) How and to what extent do opportunities for AOD discussion arise and get taken up in GP consultations?

(ii) When AOD discussion does occur, how do GP's identify AOD problems, educate patients, give advice and implement early intervention or harm minimisation measures?

(iii) Which aspects of communication impact on the extent to which different AOD topics are pursued (or not)?

(iv) How effectively are AOD issues negotiated?

(v) Is it possible to identify changes to policy or practice that might improve AOD management in the Primary Care setting?

***Methodology***

This study builds on the methodology and findings of several related projects undertaken by members of the Applied Research on Communication in Health (ARCH) Group and draws on an existing bank of naturally occurring video recorded GP consultations (171 at the time the research was undertaken). The data bank consists of transcripts, content summary logs, field notes and demographic data of both the patients and GPs. The sample for this study was selected from consultations where the content summary contained keywords indicating that they did contain or could potentially be expected to contain AOD discussion. For some of these consultations the associated medical notes were also available. A multi-disciplinary approach to data analysis was adopted, involving input from academic clinicians, research nurses, a GP and addiction doctor and social scientists. Triangulation was achieved by comparing the results of a sociolinguistic interaction analysis and clinical review of the actual AOD conversations in videotaped consultations. This was complemented by review of medical notes (where available) and interviews with three of the fifteen GPs who had contributed videos for this project, to establish a primary care data interpretation perspective.

***Results***

Keyword search of the full ARCH corpus dataset of 171 GP consultations identified 56 interactions where AOD talk might be expected to occur on the basis of the clinical topics discussed. Some mention of AOD was found in 86% (48/56) of these consultations and any discussion in 75% (42/56). The AOD substances mentioned included alcohol, tobacco, caffeine, sedatives (anxiolytics) and analgesics. There was no mention of cannabis smoking or use of other illicit substances in any consultations in this sample, despite expectations based on prevalence of these behaviours in the New Zealand population.

Of the 48 consultations with some mention of an AOD topic, 88% (42/48) went beyond a brief interaction of single question or comment and paired response to some further exchange of varying length, ranging from quite full discussion with advice to shorter interaction with few AOD details ascertained or discussed. Of these instances

where there was some further AOD discussion or advice, smoking was discussed in 57% (24/42) of cases, alcohol in 40% (17/42) and other substances in 17% (7/42).

The AOD topic itself was not the presenting complaint in any of these cases, although in some of our examples AOD could be inferred to be a primary factor in the need to consult the GP. AOD topics were generally raised in the context of presenting symptoms, often either during the systematic functional enquiry or in screening for related conditions.

When an AOD topic was mentioned, a degree of interactional delicacy or discomfort was often observable in the verbal and non-verbal behaviour of the participants. Such sequences of talk were characterised by a greater proportion of speech dysfluencies, pausing, over-talking, rephrasing and incomplete sentences; patients also manifested discomfort via their body language, minimising responses or becoming defensive. Both patients and GPs were observed to change the subject in cases of apparent discomfort. GPs could be seen to talk down the importance of the topic when it was raised, or suggest a change in substance intake but not necessarily to the intake level recommended in evidence-based guidelines.

GPs did not usually revisit any earlier discussion of the AOD topic in a concluding summary. Although not a focus of this project, an additional finding was that AOD discussion was not consistently documented in reviewed patient notes. Documentation appropriateness cannot be judged without further information.

Discussion of smoking occurred more often than that of alcohol or other drugs. In general the smoking conversations appeared to be more comfortable for both parties. AOD discussion took place more often when substance use was first raised overtly by the patient. AOD discussion rarely occurred in consultations where the topic presentation was covert or indirect. The interviewed GPs identified time pressure and the sensitivity of AOD topics as the main barriers to effective AOD discussion. The most complete AOD discussions were indeed quite prolonged interactions and many demonstrated mastery in handling the interactional delicacy.

### *Discussion*

Many possible reasons may impact on whether or not AOD discussion opportunities are taken up by our contributing GPs and their patients. The methodology applied here cannot open up the “black boxes” of clinical reasoning and the patient’s intended

consultation agenda. However, factors contributing to AOD discussion (or not) can be grouped into 3 broad categories: Interactional, Clinical and System or Policy factors. Interactional factors include the interpersonal styles and skills of both GP and patient, non verbal communication, and the perceived delicacy of the topic as well as what is actually said. GPs typically enquire about AOD use in indirect or non-threatening ways, use closed questioning, put forward mitigating statements for patient agreement and accept understatements of AOD use. Patients typically minimise or give socially acceptable answers. The sociological concept of "face work" provides a useful explanatory framework for the finding that although both GPs and patients can be observed to orient to the importance of AOD use and its impacts on health, they find it problematic to discuss. Socio-legal constraints may also add to the observed interactional delicacy, with patients naturally reluctant to divulge socially unacceptable or illicit drug use, and GPs possibly reluctant to document this particularly since any official request for medical records might expose confidential patient disclosures.

Clinical factors hampering AOD discussion include the acuteness of the presenting complaint and the need to triage from multiple topics for discussion. Time pressure to seek relevant examination findings and also arrange follow up for the presenting complaint may mean that AOD topics cannot be attended to immediately when raised. If GPs lack confidence in their AOD knowledge, awareness of guidelines or knowledge of referral options this may inhibit in-depth discussion. The data examined for this study provides only a snapshot of a single consultation in each case, and therefore lacks information about follow-up AOD enquiry or appropriate clinical intervention that may have taken place subsequently. However, the findings of this project are consistent with international research which indicates that tobacco and alcohol are the AOD topics most handled by GPs.

System or policy factors include GP funding, workplace practices and policies, systems for routine screening and consultation time pressure. Primary Care in New Zealand retains a large component of a "user-pays" system potentially making follow-up very difficult. General Practice is a wide ranging specialty branch of Medicine demanding great breadth of knowledge and skills: consultations are complex and multi-faceted. Documentation methods may have a significant impact on the consultation flow (especially typing notes if the doctor is not a touch typist). The interactional necessity of writing notes after the consultation has ended may lead to

economy of note-keeping, including lack of AOD documentation, which could have future medico-legal consequences.

The ethical principles of Non-judgement and Beneficence, and the desire to preserve the doctor-patient relationship, may go some way to explain the face work and less pursuant approach to AOD in a number of the GP consultations that were analysed.

***Conclusions***

This exploration of naturally occurring consultations has indicated that while the GPs spent a significant amount of time on AOD issues, systems expectations about the frequency of opportunistic screening and brief interventions may be unrealistic. It is difficult to judge, based on this sample, how much these findings represent active avoidance or the pressure of competing demands, but it is possible that both phenomena occur. This study does not establish whether the apparent compromise in some consultations between patient-centred approaches and the need to routinely screen for AOD use is appropriate or inappropriate, nor can it judge appropriateness of the advice given. It is also unclear how transferable the findings are to different situations since there may be other factors at play that foster or hinder discussion of AOD in the consultation.

Clearly in this small sample of consultations the existing primary care AOD guidelines were not used in the manner in which they were intended by design. This finding is not unique to GPs or to AOD discussion. Possible reasons for this should be explored to inform strategy to address it. One consequence of this may be recognition of need to re-design clinical guidelines to better fit the patient-centred face work approach used by GPs to develop and maintain therapeutic relationships with their patients.

Our findings also carry implications for both GP vocational training and continuing professional development programmes, especially with regard to AOD consultation skills and medical documentation. In addition, the current user-pays model deserves consideration as a potential barrier to discussion of AOD issues between patients and their GPs. Financial incentives currently exist at the General Practice level to facilitate effective screening and interventions for chronic disease such as cardiovascular disease and diabetes. A similar targeted incentive approach should be considered to facilitate AOD discussion with patients. A dedicated funding stream to provide AOD screening or management consultations that are free to the patient may be justifiable on the basis of overall cost effectiveness to the community.

*Recommendations*

- Clinical guidelines for primary care AOD screening and brief intervention should be revised to take into account that NZ GPs use a patient-focussed method in their consultation.
- Guidelines should be clear about realistic documentation strategies with regard to AOD use, and frequency with which information is updated.
- Primary Care funding models should be explored to better address the cost barrier to discussion of AOD issues with their patients.
- A cost-effectiveness analysis should be undertaken to explore alternative funding models including targeted incentives for AOD discussion in General Practice.
- GP vocational training and continuing professional development programmes should be revised to take into account any changes resulting from the above recommendations.

# Introduction

Health consequences of alcohol and other drug (AOD) abuse are a major cause of preventable death and morbidity both internationally [1, 2] and in New Zealand [3-5]. The health consequences of alcohol use, smoking and illicit drug use are considerable, and the NZ Government has duly placed emphasis on this with initiatives including the National Drug Policy 2007 – 2012, the NZ Health Strategy 2000, the NZ Alcohol Strategy. Substance use features directly in two of the six current NZ Health priorities and indirectly in two others (diabetes and cardiovascular disease). In New Zealand, Primary Care is the interface where Government policy public health initiatives are implemented at a personal health level guided by the Primary Care Strategy 2002. Problematic substance use undoubtedly exists undetected in the community. Serial national household surveys of drug use [6] show the trends of substance use in NZ with a pattern of increasing lifetime alcohol use, decreasing tobacco use and emerging use of other substances of abuse.

AOD abuse and dependencies are by nature chronic and relapsing, and therefore substance abuse should ideally be considered in all health encounters even in the absence of any significant past history. Screening for AOD risk is particularly important because there is evidence that early detection and intervention is beneficial [7, 8]. In particular a Cochrane review of brief intervention has shown undoubted benefit [9]. Cigarette smoking and alcohol drinking are very visible in society and although they represent legal substance use, these behaviours do still carry significant social stigma. In contrast, illicit drug use especially can remain hidden behaviour despite immense personal and social consequences.

GPs are well placed to deal with AOD issues because they are community-based, easily accessible to the population and often the first point of contact into the health system [10-12]. GPs are expected to detect AOD risk behaviours and provide appropriate advice [13, 14]. Much "top-down" health policy relies upon primary care delivery; with numerous guidelines and tools for screening, early detection and management designed for New Zealand primary care residing particularly on the website of the New Zealand Guidelines Group (www.nzgg.org.nz), and AOD specific information also on the National Drug Policy (www.ndp.govt.nz/moh.nsf/index) and the Alcohol Advisory Council (www.alac.org.nz) websites.

However, there is some uncertainty amongst General Practitioners in New Zealand about their role in delivery of a panoply of public health initiatives at the personal

health level [15, 16] and it would not be surprising if this role uncertainty also extended to primary care detection and management of AOD problems.

In addition, there is little published research internationally, and to date none from NZ, using interactional data to analyse how AOD related issues are actually negotiated in the GP consultation. One Seattle study used audiotapes to analyse doctor/patient discussions with patients who had already screened positive for alcohol misuse, as part of a larger quality improvement trial [17]. Despite the pre-screening those health professionals did not often explore disclosures about substance use offered by their patients during the consultation; any advice given about alcohol was vague or tentative, and provider discomfort was evident during alcohol-related discussions[17].

Known barriers to AOD discussion exist for GPs, including time pressures and the sensitivity of the topic [17, 18]. Social factors also influence how the consultation is constructed [19]. A medical reason or warrant to discuss AOD helps the discussion [20]. Fear of harming the doctor-patient relationship [21, 22] may compound any lack of knowledge or confidence in addressing some AOD topics [17, 23].

Consequently, despite reasonable public health expectations [16], opportunities that present for AOD screening and intervention in NZ primary care consultations are not always taken up by the doctors, and this is consistent with international research findings [17, 24]. An analysis of individual doctor-patient interactions can provide some understanding of the nature of the AOD talk [25].

This study explores opportunistic AOD interactions between patients and GPs in a sample of recorded primary care consultations to better understand the following questions:

(1) How and to what extent do opportunities for AOD discussion arise and get taken up in GP consultations?

(2) When AOD discussion does occur, how do GP's identify AOD problems, educate patients, give advice and implement early intervention or harm minimisation measures?

(3) Which aspects of communication impact on the extent to which different AOD topics are pursued (or not)?

(4) How effectively are AOD issues negotiated?

(5) Is it possible to identify changes to policy or practice that might improve AOD management in the Primary Care setting?

The project uses a subset of previously video-recorded naturally occurring consultations within the ARCH corpus [19, 26] to obtain insight into how AOD advice is dealt with in the GP consultation. These recordings allow a rare opportunity for in-depth study of the actual interactions between doctor and patient during the consultations.

Direct observation of the interaction has several distinct advantages over retrospective interviewing of the GP and patients by allowing subsequent replay and analysis of how the AOD talk actually took place [26]. It avoids undue reliance on the GP's or patients' recall, which may be imperfect and subject to recall bias or hindsight bias in particular [27]. Direct recording to video is an improvement on direct observation as it by-passes the need for a researcher to be in the consultation room, which potentially could change the nature of the doctor-patient interaction and the content of the consultation. However this methodology does not preclude the opportunity to also retrospectively interview either the patients or the doctors for their recall and insight into the actual interaction.

It is anticipated that the findings from this interactions research may lead to recommendations for improvements to the way that AOD advice is given in the GP consultation. This project may also throw some light on other, previously identified, aspects of doctor-patient interactions that warrant further research, including negotiation of safe prescription drug use [26, 28], interactions with a third party [29] and practicalities of clinical note-taking.

# Method

This study builds on the methodology and findings of several related projects undertaken by members of the Applied Research on Communication in Health (ARCH) Group, and it draws on an existing bank of video recorded GP consultations. The research involves the analysis of a subset of pre-recorded videos of naturally-occurring GP consultations within the ARCH corpus at the Wellington School of Medicine. The ARCH Corpus is a searchable digitised collection of medical consultations and related data for use in interaction analysis, with particular emphasis on communication research methodology that avoids recall bias [27]. The ARCH Corpus is the first data set of its kind in New Zealand [19, 26, 30]. The Central Regional Ethics Committee has approved health communication research using the corpus (CEN/05/12/096).

The ARCH Corpus consists of the digital consultation recordings, full transcripts, summary content logs, field notes and demographics of participating patient and doctor. For some consultations the associated medical notes and debriefing interviews with GPs were also available.

## *Consultation selection*

The Corpus is digitally searchable on keywords and a subset for this analysis was found by searching for keywords and clinical topics where discussion of AOD is likely to take place [31]:lifestyle discussions, any injuries, mental health (depression, anxiety), physical health (liver, gastric or heart problems) and presence of named substances of abuse.

The initial search terms were: alcohol, smok*, heart, gastr*, liver, depress*, anxiety, mental health, lifestyle, injur*, cannabis, marijuana. The symbol * indicates that the common root was the word search term for example using the common root smok* to capture the words ‘smoker’ and ‘smoking’.

At the initial search of the database in October 2008, 154 consultations were available for analysis from which 27 consultations with the best mapping to search terms were selected for a feasibility pilot to test the methodology to analyse AOD discussions. Additions to the corpus continued during the feasibility study and by January 2009 the corpus contained 157 GP consultations. The search was repeated using the prior search keywords but including caffeine and an additional 15 consultations were identified for analysis. These included 2 of the 3 new consultations logged since the

previous search and 13 consultations identified in the initial search but with lower mapping correlation to the key search words. When the Corpus was again searched in March 09 and again May 09, using the same keywords, 14 new consultations had been added bringing the total to 171 consultations. From these an additional 7 consultations, logged since the previous searches, were selected for analysis. This iterative search strategy brought together a set of 56 consultations for in-depth analysis for this project (as shown in figure 1 on page 20).

The patient and GP demographics of interest to this project are: patient age, sex, ethnicity and educational qualification (as stated by patients at recruitment); GP age, sex and ethnicity; familiarity (whether or not the patient was known to the GP) and the consultation length. This detail was available for analysis as it had been collected at the time of recording the consultations and had been securely stored in the Corpus.

### *Consultation analysis*

Sociolinguistic interaction analysis was seen as an appropriate tool to shed light on the clinical consultation because it focuses on the sequence and unfolding of talk as it occurs in social interaction. In addition conversation analytic approaches do not rely on the cognitions, rationales and justifications of those involved in the social interaction, but look rather to the rules of interaction itself. Interaction analysis is becoming a common methodological approach in research on health care interactions, including research looking at encounters between patients undertaking chemotherapy and their doctors [32], consultations related to antibiotic medication [33], and psychiatric consultations [34]. It allows rules of interaction to be identified, which in turn enhances our understanding of the outcomes of social interaction. The term ‘rules’ here does not refer to a rigid set of prescriptive norms, but rather, is used in the sense of “standards that determine what constitutes an activity of that kind, whether the activity has been performed correctly and so on” [35]. An initial issue for researchers is to describe the ‘activity’, and the role of the researcher is then to pay close attention to the details of social interaction in order to generate an understanding of the ordered nature of the interaction [22].

The subset transcripts were analysed first for any AOD talk in the consultation. The location of the AOD talk, how long it lasted and who initiated it, and specific content was noted, including evidence for whether or not the patient admitted to using AOD, whether advice was given and, if so, the type of advice. Transcripts were then

analysed to see where and what opportunities for AOD discussion arose in the consultation, and whether these opportunities were taken up. If the opportunities where not taken up, the video and transcript were searched for possible reasons for this within the interaction as well as possible barriers to AOD discussion in the consultation. The analysis to characterise AOD conversations used socio-linguistic conversation analysis approaches.

Firstly a distinction was made between consultations which contained any mention of substance use and those consultations in which there was a discussion. Mention here is defined as any explicit mention and includes any clear inference, while discussion is defined as an interactional exchange between the patient and the GP on the topic lasting for longer than a single paired question or comment and response. Where there was a discussion, note was made of the nature and content of the discussion, for example if there was specific clarification of the amount of substance consumed and the setting for consumption. In addition, attention was given to the nature of the AOD advice given; if it was general advice or if it was tailored to the patient and his or her specific situation.

The consultation video-recordings were viewed to gain further insight into the data gathered from the transcripts, assessing non-verbal cues and body language of the GPs and patients. Trends and common patterns were noted in relation to AOD discussion in the consultation. A multi-disciplinary approach to data analysis permitted triangulation of the results and later of the overall findings from the perspective of differing researcher backgrounds (addiction medicine, general practitioner, research assistant, primary care nurse, medical student, and sociolinguist). Cross validation was achieved by comparing the results of a sociolinguistic analysis and clinical review of actual AOD conversations in videotaped consultations, complemented by review of notes (where available) and also content analysis of interviews with three of the fifteen GPs who had contributed videos for this project, to establish a primary care perspective on data interpretation (as below).

### *GP interviews*

When the ARCH corpus recordings were first collected, consent was also obtained to later contact the contributing GPs to discuss or clarify points arising from the analysis. Three of the fifteen GP’s contributing videos for this project were approached to be

interviewed in order to establish a primary care perspective on data interpretation. The GP selection was semi-purposeful, based on doctor gender, practice location and population socioeconomics. Three GPs were approached by fax and email for this purpose and all three granted the request, which was followed up by a phone call or a visit to set up a time for the interview. The GP interview schedule is shown in table 1. Written notes were taken during the interviews and typed up immediately after to minimise recall error. As the interviewed GPs were all Wellington-based, the CEO and staff of the major Primary Health Organisation in Wellington (Compass Health) were also approached in telephone interviews for information about incentives currently available within the region to encourage AOD discussion in Primary Care.

Table 1: GP interview schedule

1. What are the opportunities to talk about alcohol and other drugs (AOD) in a GP consultation?
2. How often is AOD talked about in GP consultations?
3. Under what circumstances is AOD usually raised in the consultation?
4. What type of AOD advice is given in the consultation?
5. How valuable do you believe AOD advice is, when given in the GP consultation?
6. How are AOD issues usually screened for in new patients/ known patients?
7. Who in the practice usually deals with AOD problems in the patient?
8. What do you see as reasons that AOD opportunities are missed?
9. What do you think are barriers to the discussion of AOD with patients?
10. What are your own feelings towards holding an AOD discussion within the GP consultation?

# Results

## *General Demographics*

Tables 2 and 3 contain an overview of participant GP and patient demographics.

Table 2 GP Demographics

| GP ID | Age | Sex | Ethnicity |
|---|---|---|---|
| GP01 | 52 | M | European |
| GP02 | 48 | M | NZ European |
| GP03 | 39 | M | NZ European |
| GP04 | 45 | M | NZ European |
| GP05 | 45 | F | NZ European |
| GP06 | 54 | F | Irish |
| GP07 | 31 | M | NZ European |
| GP08 | 36 | F | NZ European |
| GP09 | 46 | M | NZ European |
| GP10 | 31 | M | NZ European |
| GP11 | 49 | M | NZ European |
| GP12 | 33 | F | Sri Lankan |
| GP13 | 46 | F | NZ European |
| GP14 | 47 | M | Bangladesh |
| GP15 | 30 | F | Sth African European |

This sample of 15 consulting doctors was composed of 6 female and 9 male GPs aged 30-54. The sample of 56 patients was composed of 22 women and 34 men with an age range of 18-80 years (at the time of consultation).

As table 3 shows, each patient interaction was given a study number and also a composite number, indicating the GP-patient combination. Hence it can be seen, for example, that this study has used two different patient consultations with GP01 and three with GP15.

The demographic data was collected at the time of the consultations: an empty data field represents a question that was not completed by the participating patient.

Table 3 patient demographics

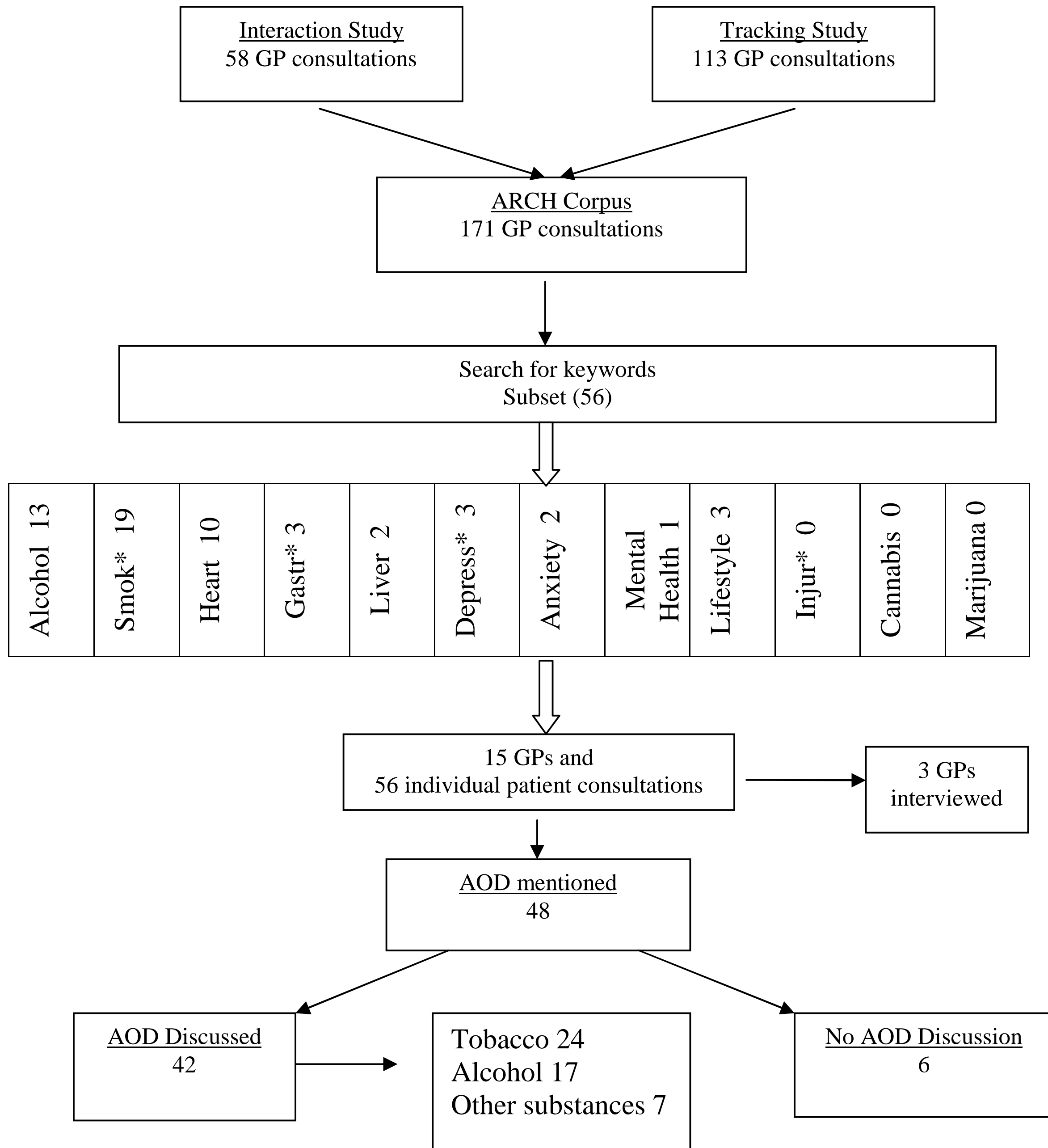
| **Study No. and ARCH corpus ID number** | **Age** | **Sex** | **Ethnicity** | **Education/Qualifications** | **Was patient already known to GP?** |
|---|---|---|---|---|---|
| PT01 GP01-02 | 52 | M | NZ European | Primary school | No |
| PT02 GP01-03 | 59 | M | NZ European | Trade certificate | No |
| PT03 GP02-02 | 29 | M | NZ European | Polytechnic | No |
| PT04 GP02-04 | 29 | M | NZ European | University | No |
| PT05 GP02-13 | 47 | M | American | PhD | Yes |
| PT06 GP03-01 | 72 | M | Italian | | Yes |
| PT07 GP03-02 | 32 | M | NZ European | Primary school | Yes |
| PT08 GP03-05 | 64 | M | Greek | NZ School Certificate | Yes |
| PT09 GP03-06 | 66 | M | NZ European | Primary school | Yes |
| PT10 GP03-11 | 54 | M | NZ European | NZ Uni bursary/NCEA Level 3 | Yes |
| PT11 GP03-16 | 31 | F | NZ European | University | Yes |
| PT12 GP03-19 | 43 | M | NZ European | NZ 6th Form cert/UE/NCEA Level2 | No |
| PT13 GP04-06 | 68 | F | NZ European | University | Yes |
| PT14 GP04-08 | 47 | M | | University | |
| PT15 GP08-01 | | F | Thai | unknown | No |
| PT16 GP08-10 | 52 | F | NZ | NZ 6th Form cert/UE/NCEA Level2 | Yes |
| PT17 GP08-12 | 58 | M | NZ European | Professional qualification | No |
| PT18 GP08-22 | 26 | F | NZ European | University | No |
| PT19 GP09-03 | 68 | M | NZ European | Professional qualification | Yes |
| PT20 GP09-04 | 59 | M | NZ European | Professional qualification | |
| PT21 GP09-17 | 69 | M | Tongan | NZ School Certificate | Yes |
| PT22 GP09-20 | 66 | M | NZ European | Primary school | Yes |
| PT23 GP10-05 | 80 | M | NZ European | University | Yes |
| PT24 GP10-09 | 24 | M | NZ Maori + NZ European | University | Yes |
| PT25 GP10-14 | 22 | M | NZ | NZ School Cert/ NCEA Level1 | Yes |
| PT26 GP11-02 | 60 | F | NZ European | University | Yes |
| PT27 GP11-18 | 63 | M | NZ European | School Certificate | Yes |
| PT28 GP02-09 | 37 | F | Irish | Professional qualification | No |

| Study No. and ARCH corpus ID number CONTINUED | Age | Sex | Ethnicity | Education/Qualifications | Was patient already known to GP? |
|---|---|---|---|---|---|
| PT29 GP05-02 | 64 | M | NZ European/Swiss | NZ 6th form certificate | |
| PT30 GP03-12 | 62 | M | Maori | NZ school cert/NCEA Level1 | |
| PT31 GP10-03 | 40 | M | Dutch | PT degree/trade/tech cert | |
| PT32 GP10-07 | 31 | M | English | BSc Hons. | |
| PT33 GP11-19 | 36 | F | NZ European | University Masters degree | |
| PT34 GP-2-07 | 27 | F | Russian | University degree | |
| PT35 GP02-05 | 66 | M | NZ European | University degree | Yes |
| PT36 GP03-07a | 52 | F | NZ European | NZ 6th Form cert/UE | Yes |
| PT 37 GP03-13a | 42 | F | NZ European | PT degree/tech cert/trade | No |
| PT 38 GP03-14 | | M | | | Yes |
| PT 39 GP04-09 | 79 | F | NZ European | Primary school | Yes |
| PT 40 GP05-03 | 76 | F | Dutch/NZ European | Professional qualification | Yes |
| PT 41 GP06-06 | 82 | M | NZ European | Primary school | Yes |
| PT 42 GP07-05 | 67 | M | NZ European/Maori | Primary school | Yes |
| PT 43 GP08-05 | 21 | F | NZ European | NZ Uiv bursary/NCEA Level3 | Yes |
| PT 44 GP08-08 | 65 | F | NZ European/Samoan | Primary school | Yes |
| PT 45 GP08-09 | 46 | F | Samoan | NZ 6th form cert/UE/NCEA Level2 | Yes |
| PT 46 GP09-02 | 68 | F | NZ European | | Yes |
| PT 47 GP 09-10 | 46 | M | NZ European | PT deg/trade/tech cert | No |
| PT 48 GP12-02 | 18 | F | NZ European | unknown | No |
| PT 49 GP12-06 | 25 | F | Samoan | unknown | No ? |
| PT 50 GP14-01 | 47 | M | NZ European | unknown | Yes |
| PT 51 GP14-02 | 26 | F | NZ European | Batchelor degree | |
| PT 52 GP14-04 | 66 | M | NZ European | School certificate | Yes |
| PT 53 GP14-07 | 43 | M | NZ European | Higher school certificate | No |
| PT 54 GP15-01 | 78 | F | Maori | Primary school | Yes |
| PT 55 GP15-02 | 19 | M | Laos | University Entrance | No |
| PT 56 GP15-03 | 58 | F | Maori | School certificate | No |

Figure 1gives an overview of the selection of 56 consultations for this study and 42 chosen for in-depth analysis, from the total of 171 available for use in this project.

Figure 1 Selection of consultations.

**NB:** Many of the logs contained more than one keyword, e.g. alcohol and gastro and liver, listing was determined by correlation to any search term and duplications subsequently removed.



### *Overall AOD content*

AOD key search words were found in almost one third (56/171) of the GP consultations in the ARCH corpus. Of the consultations containing the AOD key search words, 86 % (48/56) contained some mention of an AOD topic and 75% of these (42/56) went on to AOD discussion of variable lengths. Thus there actually was some AOD-related dialogue in 75% of the instances where AOD discourse could be expected to occur on the basis of the presence of key search words. Amongst the consultations with any overt mention of an AOD topic, 88% (42/48) of those interactions went beyond a single brief question/comment and paired response to some further exchange.

Typically these patients discussed use of alcohol, tobacco, caffeine, sedatives (anxiolytics) and analgesics with their GPs. There was no mention of cannabis or other recreational drug use in any of these 171 GP consultations.

The nature of the AOD conversations ranged from discussions of some length, some almost in line with the approach suggested by approved screening tools (see examples 1 and 2), to much shorter exchanges with some AOD information exposed but not well explored (example 3), and to brief interactions where questioning occurred without further discussion or advice (example 4).

These examples also demonstrate that the naturally occurring discussion between a patient and GP is typically characterised by patterns of partial sentence constructions which the patient may complete, or with the GP or patient interrupting the flow of conversation with over-talking, similar to consultation patterns in all branches of medicine as well as other studied contexts.

In instances where there was some further AOD information exchange or discussion or advice, smoking was discussed in 57% (24/42) of cases, alcohol in 40% (17/42) and other drugs in 17% (7/42). In none of the smoking-related consultations was there any clarification of what substance was smoked. ‘Smoking’ was always assumed to refer to tobacco smoking. Cannabis smoking was not mentioned in any consultations in this sample.

A few consultations mentioned prescription drugs of misuse (mainly the class of prescription sedatives known as benzodiazepines). The consultations about prescription drugs of misuse were not identified using a named drug search term but were found through the mental health search terms, raising the possibility that the set

of 171 consultations may contain additional undetected examples of discussion about prescription drugs of misuse.

Any mention of an AOD topic enables patients to declare continuing substance use, if that is indeed the case. An admission of alcohol use and/or smoking was seen in 19.3% of the consultations overall (33/171), and in 69% (33/48) of the subset of consultations where AOD had at least been mentioned. In some consultations, patients who smoked explained that they did not regard themselves as cigarette smokers (examples 20 and 28). As expected, some patients deny that their drinking is excessive (example 17) but surprisingly the doctor sometimes appeared to deny that the patient may have a problem despite a revelation suggesting otherwise (examples 2b and 5).

Tobacco smoking conversation was pursued more often than alcohol or other substance use in these consultations. Smoking was mentioned in 27 consultations and in 89% (24/27) of those the patient and doctor went on to discuss smoking in some manner. Advice about smoking was given more often than alcohol advice in this sample: 17 patients admitted to being current smokers and 13 (76%) of them received some advice. Discussion of smoking was generally negotiated to the point of offering cessation advice (example 2a).

In contrast, in the consultations where alcohol was mentioned only 68% (17/21) proceeded to discuss alcohol intake in some detail and only 24% (4/17) were given any advice. The extent of alcohol discussion might include a specific exploration tailored to the patient's actual circumstances (example 1) but more often the discussion about alcohol included quite limited specific advice (examples 2b and 18) or even very general advice to "keep under control" (as in example 5). Example 2 demonstrates the contrast between the nature of smoking advice (in 2a) and alcohol advice (in 2b) that was given to one patient.

AOD was not the presenting complaint in any of these cases, although in some of the sample AOD could be inferred to be a primary factor in the reason to consult the GP. The AOD discussion therefore occurred usually part-way through the consultation. When AOD factors were first raised by the GP this was generally in the context of presenting symptoms often either during the systematic functional enquiry or in screening for related conditions (as in example 2a) or other disease risk factors (examples 4, 5).

Where the patients had initiated the AOD discussion it was sometimes offered as a patient observation that it seemed to be related to their symptoms (example 3) or sometimes as a possible explanation for their health problem or symptoms (examples 6 and 7).

Wherever discussion of alcohol or other substance use took place, it was unlikely to be raised again by the GP in the consultation, even when the GP summarised important points at the closure, unless the patient had admitted to being a user of tobacco and tobacco cessation had become part of the management plan. In the few instances where the GP did subsequently mention AOD this was either because the GP was screening for use of another different substance later in the consultation (see examples 2a and 2b) or because the patient had tried again to get the discussion back on the consultation agenda by offering additional new information (examples 12, 13 and 14).

### *Interaction Analysis*

Discomfort for both the patient and the GP was noted during discussion of AOD use. GP's manifested discomfort in speech dysfluencies (example 8), pausing, over talking, rephrasing and stuttering (example 15a), use of incomplete sentences and backing down before obtaining all the relevant information sought (example 9). In example 9 the GP told the patient how much alcohol the patient consumed each week: the patient did not venture to correct the GP's assertions, but the speech dysfluencies indicated patient discomfort with the topic.

The GP was not in full view in most video recordings (instead seen on back or side view) but the visible body language often seemed uncomfortable when discussing AOD topics. The GP and patient could also be seen to mirror each others verbal and body language discomfort. Patients manifested discomfort in their body language, for instance by wriggling around in their chairs and folding their arms, their facial expressions changed with some looking annoyed and others looking embarrassed, and they also manifested verbal discomfort with AOD topics by minimising responses, becoming defensive or by dysfluency.

In these examples, both patients and GPs were seen to use the tactic of changing the subject in cases of discomfort, and GPs generally did not persist in the AOD enquiry when patients had abruptly ended it.

The data also showed examples where the GP ended AOD discussion abruptly and switched the conversation back to another symptom (example 10) or moved on to another consultation component such as proceeding with a clinical examination (example 3). Examples were found where the patient was clearly not comfortable with engaging in the AOD conversation and in one instance (example 11) the patient not only responded minimally to the GPs enquiries but also allowed a sudden switch in the topic under discussion without challenge (example 11).

AOD discussions enjoyed more interactional success in leading on to advice when the substance use was first raised overtly by the patient. GPs occasionally succeeded in mentioning AOD but not usually in establishing discussion when the presentation of the topic was covert. GPs would sometimes attempt to give their AOD enquiry a medical mandate by, for example, mentioning the well-being of the heart or blood pressure, but this also served to divert the discussion away from AOD behaviour to a more technical bio-medical arena (as in example 3).

In this sample of consultations there was no obvious relationship between presence of AOD discussion and the demographics of either the patient (age, sex, ethnicity, education) or the GP (age, sex, and ethnicity), nor familiarity (if patients were known to the GP), nor the length of the consultation. However in some cases gender bias was evident in the way that the AOD discussion unfolded. There were many examples of implicit gendered assumptions, especially in relation to socially acceptable alcohol use for males. In one instance where a male patient was using alcohol excessively, a gentle non-confrontational approach could be seen, with the GP referring to binge drinking as a “good night” and giving well-meaning advice to “peg back” from a hypothetical starting point (example 2b). The advice was couched in units of alcohol, but lack of clarity of the relationship of a unit (10gram) of alcohol to the customary units of intake (number of drinks) enabled that patient to interpret this as permission for 3-4 drinks daily (example 2b).

GP: it probably means that if it was three or four and on a good night five or six you peg that back to sort of two or three and on a good night //four\
PT: /three or four\\

In another consultation a female patient confessed excessive alcohol intake to her GP indirectly, using the words “disinfecting yourself with vodka” (example 22). The humouring responses of the GP do not indicate that such an admission has just

occurred, on the contrary there are hints that the GP may not believe that this patient really meant what she said. The GP laughs, negates and repeats the stated volume, where-upon the patient also laughs but then quietly affirms (example 22).

GP: no no //no half a litre is + probably overdoing it\

PT: /((laughs))\\ (quietly)) //*okay*\

Many examples were found of the behavioural techniques used by GPs to assist the rapport in consultations where the discussion involved a potentially sensitive topic.

## Negotiating AOD onto the agenda

AOD is rarely offered as the presenting complaint in general practice consultations, but it may be first mentioned by the patient in the context of their symptoms and so clearly flagged as present on the patient's agenda and available for discussion (example 13a). Overt discussion may be either GP- or patient-initiated. There was an interactional difference in the way that information was given by the patient depending on whether the AOD discussion had been initiated by the GP or patient. Where the patient first raised it, there usually was, as might be expected, an open admission about what was consumed, the amount, where or why (example 13). Information flow was not always as free in the interactions where the GP rather had first raised the topic, than the patient, and hence AOD discussion was not on the patient's agenda for the consultation (example 26).

Sometimes however the patient had to undertake significant interactional work to pursue the AOD topic. This was particularly seen with respect to discussions about alcohol (example 13) and caffeine-containing drinks (example 14). The GP did not always respond to the cues (example 12), did not seem to grasp the patient's intended meaning (example 14), made an utterance that discouraged the patient from continuing the AOD dialogue (example 13), or simply shut down the conversation (example 3).

In some of these examples the GP could be seen to put AOD discussion aside whilst pursuing another line of questioning that may have seemed, from a medical perspective, to be more relevant to the presenting complaint. The GP might indicate that they would come back to that in a moment but unfortunately the moment to revisit some topics did not always re-present during that consultation. Alternately, the

GP might prioritise topics to be discussed in the interests of time, but AOD did not reach the priority level for discussion in the timeframe.

GP discomfort, especially in getting the topic on the table, was very evident at times, as indicated by dysfluency of a GP wishing to challenge the patient's current level of benzodiazepine use (example 15), or a degree of tortuousness in GP questioning (example 8).

## Knowing how and when to ask

GPs usually avoid directly asking about AOD use, as in the following separate brief examples. Instead they word the question in a way that assumes that the patient is not a user or does not use excessively:

GP: ((tut)) i mean if your diet's really good I guess that y- and **you're not a smoker**
PT: no

This style of questioning is open to ambiguity as the response could mean "no, I am not a smoker" or "no, your assertion is incorrect". The inflection, which is audible in consultation recording, supplies the intended meaning to the word "no" in this instance.

Alternately the AOD enquiry may be worded as a closed smoking statement or rhetorical question that assumes that any prior knowledge the GP has held about the patient is still correct:

GP: =know that the higher + certain types of the + cholesterol (that are in) the blood + um the greater the r- long term risk of heart disease + and obviously + that has to be put into the context of whether or not you have <u>other</u> risk factors because all risk factors multiply up + **//and\ you're a non smoker +=**

Alcohol was commonly asked as a closed question or statement. In one instance the patient's wife answered the question put to the patient by the GP (example 17).

GP: ((quietly)) mm + + + **you're not having too much** ((drawls)) er alcohol at all during the day **you're not drinking + much**
WF: no just have three little glasses of wine that's all he //has\

Other instances of this style of questioning are seen in example 13. Intake questions phrased as "You didn't drink the whole bottle in one night or anything, no?", "you're

not having too much?” and “you haven’t been a cigarette smoker?” (example 20) make denial easier for a patient who does not want to make any admission.

Some disease entities are closely related to substance abuse and therefore presence of these disease entities might be expected to at least raise an AOD-related enquiry of the patient by the GP. Analysis of the sample shows that this expectation is not necessarily upheld. In one example a patient with hepatitis C infection admitted to using alcohol and tobacco as self-medication for panic attacks and social phobia (example 12), but neither the underlying cause of the hepatitis infection nor the self medication approach with alcohol and tobacco nor the excessive current use of these substances was challenged. This enquiry is especially pertinent since the patient was new to the GP; had just admitted to co-morbidity of mental health problems and substance abuse; and because injecting drug use could have been a possible underlying cause of the hepatitis C infection.

In another example alcohol intake was a possible contributory cause of falls in the elderly patient. The conversation stepped very gently around that possibility (example 18) and advice was given to cut back at least until other problems were sorted.

It would be reasonable to also expect that the GP might routinely review the AOD use of regular or known patients, if only briefly, unless the patient has been through that enquiry quite recently. Personal circumstances of an individual can change with time: relationships, work and social situations alter (example 19) and drivers to use substances may change accordingly, for example ex-smokers may relapse or a non-smoker might start smoking (example 20). However in our sample such revision of substance use was the exception rather than the rule. In addition, these particular examples did not contain advice on how to resist the new pressure to smoke or drink more than previously nor how to manage the stated smoking relapse.

## Achieving AOD discussion

If, and how well, the sensitive discussion of AOD proceeded depended upon the environment of ‘safety’ that was established and the rapport, confidence and interactional competence of those taking part. There were examples of non-exploration with a new patient (example 12), or where the GP was not very familiar with the addiction topic that was presented, such as caffeine addiction (example 14) or unfamiliar with the method of substance intake, as in the consultation about cigar use (example 20).

When the topic was patient initiated, AOD discussion proceeded more successfully to GP advice or an offer of intervention. Even these 'successful' discussions do not follow the line of questioning recommended in screening guidelines or in AOD screening tools (examples 24, 26). Attempts to quantify substance intake often stall at the first question (examples 9, 23). In only one instance was the alcohol intake quantified in units (10g ethanol) and this quantification then dominated the conversation (example 2b) as the focus on units allowed the conversation to become technical and numerical rather than about the behavioural changes required. As mentioned earlier, in this particular example the patient also appeared to misunderstand the nature of the unit quantity referred to.

### Dealing with discomfort

If discomfort with the AOD topic is signalled early in the interaction by either party through dysfluencies, this might result in poor quality of information subsequently gathered. Examples show that discomfort leads to acceptance of ambiguous or incomplete patient responses that are not very helpful to the GP in evaluating the patient's actual intake or health risk (example 8).

Use of joking or irony appeared to initially disperse the anxiety or discomfort sufficiently to enable limited discussion. Both GP and patients made jokes about AOD topics (examples 22 and 23) down-playing seriousness (examples 24 and 25).

Where discomfort with the AOD discussion is ongoing the most common observed interactional techniques were that the GP or the patient might terminate the topic of conversation, sometimes ending it abruptly (example 10) or by displacement in changing the subject (example 3) as previously mentioned.

The GPs could at times be seen to actively facilitate termination of AOD discussion by introducing another line of health enquiry (example 28) or passively terminate it by non-response to patient comments (example 12) and by allowing the patient to change the topic (example 26).

### Delivering advice

Some GPs were clearly more fluent in delivering advice than others, but in general these GPs were most fluent and direct in delivering smoking advice. Cessation was the clear aim of smoking-related advice, often with the offer of an intervention to achieve smoking cessation. Patients seemed to accept smoking advice more readily than alcohol advice. Doctors could be seen to be very direct when telling patients to

quit smoking (example 2a), but very hesitant or indirect when delivering alcohol advice, even when speaking to the same person (example 2b). For alcohol the advice was generally not directed at the goal of complete cessation but to some intake moderation. Advice about cutting down on the drinking, when given, was often heavily mitigated even where alcohol intake could clearly play an important role in the patient's health condition (example 18).

The examples show patients becoming defensive when given alcohol advice and offering explanations by way of mitigating circumstances (example 13b), including that that it is difficult to do (example 29). GPs at times appear to empathise with this sentiment by telling the patient they only need to cut down on alcohol (example 2b). Opportunities to give new AOD advice exist particularly when work and social situations change, placing different expectations on the patient (example 19), or when ex-smokers admit to relapse (example 20). Unfortunately these particular examples in our data set did not include advice to resist the new pressure to drink or the relapse in smoking.

Patients who are smokers will usually see the GP smoking enquiry coming and if not willing to discuss cessation they could be seen to get defensive or very abrupt. In one example (example 26) the GP tried to suggest cessation services but was rebuffed by the patient who at first laughed at the idea and then, on realising that the GP was serious, closed off the conversation by saying that he would "just stop".

Hence, both patients and doctors can be seen to facilitate cutting short the smoking discussion. There were no clear examples of interactions that used a standard motivational interviewing approach or followed the format of the national smoking cessation guidelines.

### Dealing with denials

Where the GP mentions that alcohol intake is excessive the patient response may be also be defensive or down-playing (example 17). None of the GPs in the analysed consultations challenged this denial (example 10). Although the GP intention may be to portray empathy about the difficulties associated with addiction, there is a danger that this might sometimes be regarded as the GP aligning with the patient or condoning the patient's behaviour. For example in one consultation the GP, referring to the doctor's own excessive use of caffeine in the past when working under stress, said "it's ok, I'm like you, you're normal" (example 27).

In many examples the GP seemed happy to be reassured by answers to an AOD enquiry if the patient stated that there was no problem. GPs rarely challenged the information given by their patients, even if the context of the presentation or the interactional nature of the patient's reply might have raised further suspicion. In one instance a patient, now only smoking on social occasions, explained that he did not regard himself as a smoker but as an ex-smoker. The GP did not challenge this patient's interpretation of current smoking status (example 28). Some patients may even clearly overstate that they have no AOD problem, sending an interactional signal to the GP not to pursue the topic further (example 9).

Even in consultations where a health problem exists for which drinking alcohol is clearly contraindicated, that health concern may not necessarily be discussed with the patient. One example of this was the new patient with hepatitis C (example 12) who was not cautioned against the health risks of continuing to drink alcohol with an impaired liver. In another example, the patient who was previously known to the GP had falls possibly exacerbated by alcohol (example 18). Rather than confront that issue as a contributing factor in ill-health, the GP can be seen to roll with resistance and suggest just cutting back a little, an interactional tactic that may have been based on previous experience with that particular patient.

### Difficult discussions

Benzodiazepine abuse proved particularly difficult for GPs to explore with their patients (example 15) and also proved difficult to negotiate to the point of successful agreement to change the management. In the following examples, GPs can be seen to give their patients acceptable reasons for continued regular usage and even endorse a dose increase (example 29); to find it easier to agree to prescribe sleeping pills than to negotiate weaning (example 30); and not to warn patients of the risks of taking too many prescription medications (example 31). These examples indicate that GPs might find it very challenging to persuade patients to manage anxiety or sleep disturbance in a non-pharmacological manner. For example, in one case (example15b) the GP did not advise that patient about more appropriate use of sedative prescription, such as to attempt behavioural alternatives to try to get to sleep and to wait for more than half an hour beyond the desired sleep time before resorting to taking the sleeping pill.

Interactional dfficulties were also seen in consultations where another person was present in the consultation with the patient, such as a partner/carer/relative/support

person. In some instances the third party may know of a potential AOD problem but will not want to speak out in front of the patient, this can stunt full discussion of sensitive issues (as in example 32). In other instances the third person was seen to contribute to the patient's resistance to change or denial. In one example (example 33) the care-giver attending the consultation was herself a smoker and she explained how she had resisted smoking cessation advice given to the patient as a prerequisite for the patient to have home oxygen.

Documentation can be seen to add interactional difficulty to these consultations. These doctors were not touch typists and therefore documentation during the consultation required the doctor to direct attention away from the patient and give full attention to the computer instead. This caused a break in the natural flow of conversation, loss of eye contact and changes in body language of both doctor and patient. Typing notes during the interaction also represented an additional task competing against the other demands on consultation time. Some doctors completed their medical notes after the consultation had ended. Although not a focus of this project, an additional finding was that the AOD discussion was not consistently documented in the patient notes that were available for review. Medical notes were available for only a subset of the consultations that were analysed and appropriateness of the documentation cannot be judged without further information.

## Making assumptions

Some of these examples have documented the assortment of AOD assumptions that may be made by the GP about the patient. Assumptions related to age and gender-appropriate AOD behaviour have been mentioned earlier. In the following example the GP has assumed that he knows how long it was since the patient ceased smoking, and has stated that expectation. However the discourse analysis of the excerpt below, about the time since the person last smoked, with its pauses, drawl and stuttering of the patient, indicates that there may have been a problem that the GP was not aware of with the actual and stated duration of smoking cessation.

GP: come and have a seat up the edge of the bed and (    ) (2) now yo- how long ago since you stopped smoking

PT: ((drawls)) *oh*

GP: couple of years now isn't it

PT: (a year ) (2)

GP: sorry?

PT: b- be good two years //(  )\

GP: //yeah\\ good okay

That statement “good, okay” ended the smoking discussion. The GP expressed surprise (“sorry?”) about the unexpected reply (“a year”) but there was no challenge or clarification to the patient’s initial statement or subsequent hesitation in giving the information, the mumbled statement of one year, and the stammered correction to align with the expectation voiced by the GP. This sequence might indicate that patient had either experienced difficulty stopping smoking when he had intended to, or had a relapse since the GP was first informed that he had stopped: possibilities not explored in the interaction.

In another example (example 33) the GP asked the patient about associates who smoke and accepted a broad sweeping negative response without discerning if the patient really meant that all of the associates are non-smokers, or to clarify which of the associates might still be smokers.

## *GP Interviews*

GPs agree that AOD is a very important issue and giving advice is valuable, but they also acknowledge that it is a topic that is not discussed as often as they would like to, to the possible detriment of best interests of their patients. When interviewed, all three GPs highlighted time pressure and the sensitivity of AOD topics as the main barriers to effective discussion.

The main reason cited, lack of time, is in recognition that since most patients come in with their own agenda, and often with a number of problems to discuss, the AOD discussion itself may not necessarily be on the patients’ agenda.

These GPs recognised the need for sensitivity in challenging a person’s substance intake, mentioning that it may be an issue that patients feel ashamed of, may not really want to talk about, and fear for confidentiality if they do not wish the extent of their AOD use to become known. Confidentiality is also a barrier to discussion of illicit drug use. For confidentiality reasons the GP might be unable to talk freely about AOD issues if the patient consults with family or friends attending the consultation as support persons. GPs recognised the importance of finding ways to overcome these barriers to achieve AOD discussion in Primary Care.

The three GPs said that AOD problems are dealt with mainly by the GPs in their practices, but with some contribution from the nurses, especially if those nurses already manage patients with chronic conditions such as monitoring the Care Plus programme [36] or lifestyle modification and smoking cessation programmes.

When asked about the circumstances in which AOD would usually be brought up by the GPs in their consultations, these GPs each emphasised different approaches. One GP said they would mainly think to ask if there was an unexplained illness, another makes a point to ask young patients especially in consultations about sexual health risks and the third mentioned mental health conditions as a trigger to the enquiry.

These GPs confirmed the general observation made from the data analysis that there is no consistent philosophical approach to screening for AOD in general practice. One GP mentioned that new patients were more likely to be asked about AOD issues during general history taking, whereas another would only ask a patient who has been seen few times. One GP practice had a form for new patients which included smoking and alcohol use questions, while another practice had a system to keep track if drug use had been discussed before. None of the interviewed GPs used formal screening tools (as outlined in appendix 2) in their practices.

The staff of the local Primary Health Organisation (PHO) stated that AOD screening and management currently falls into a gap, not fitting well within the current funded initiatives for primary care management of chronic conditions nor with mental health. That PHO had just completed a one-year pilot with Ministry of Social Development focussed on wellness for work, in which substance abuse was a possible contributing factor in some cases, but this initiative was unfortunately not ongoing (personal communication).

# Discussion

## *Seizing the opportunities*

The analysis presented here suggests that many opportunities arose for AOD enquiry or giving related advice, but in the consultations that were analysed for this project the opportunities were not always taken up. In theory there will always be opportunities for drug and alcohol conversation in any health consultation. Alcohol and drug use or abuse can produce a variety of signs and symptoms across all bodily systems; some health contexts warrant specific AOD warnings (eg for patients with diabetes or heart

disease smoking cessation is strongly advised); AOD use may constitute a relative or absolute contraindication in combination with some medical treatments (such as to avoid alcohol with certain medications) or in some health conditions (not to drink alcohol or smoke in pregnancy). In addition the many non-medical consequences of substance use (such as social, educational and justice issues) may become visible to the consulting health professional. However, this project has revealed that various factors interfere with the uptake of the opportunity in clinical practice.

This project has not only revealed that there are complexities of decision-making during general practice consultations but also that, for an external observer, difficulties arise in making an interpretation about both the clinical reasoning and the interpersonal interactions. The balance of these interactional and decision-making complexities will determine if and how an AOD topic is discussed during any consultation.

From these transcripts it is not possible to define the extent of missed opportunity, as an absence of AOD mention might represent a planned approach to consultation strategy which acknowledges competing demands and ascertains the most sensitive topics to be revisited in some future consultation.

In this project we have identified potential overt and covert opportunities, some taken up but some apparently missed. Potential opportunities were seen to be taken up relatively infrequently, and usually where the topic opportunity was presented overtly and was first mentioned by the patient. Pragmatically one would expect this to be the case: that uptake of AOD discussion opportunities would be better when the topic is mentioned overtly, rather than covertly, and especially when it is on the patient's agenda for the consultation. However, as the examples demonstrate, even when the opportunity for AOD discussion does arise overtly it does not always proceed: on occasions the AOD topic may be merely mentioned in passing very briefly then dropped suddenly. It has been harder to identify opportunities as "missed", especially when the AOD topic was raised covertly: where AOD use could possibly have been explored in the context of the topics discussed in the consultation but was not.

There are numerous possible reasons for missing opportunities for AOD discussion in the consultation and many factors could have influenced whether or not AOD discussion opportunities were taken up by our contributing GPs. These deserve further investigation.

The possible contributing reasons can be grouped into 3 broad categories: Interactional, Clinical and System or Policy factors. All these factors can be coexisting and at times inter-related considerations.

### *Interactional factors*

Interactional factors include the interpersonal skills of both GP and patient, non verbal communication, the perceived delicacy of the topic as well as what is actually said. Much of the findings can be explained by the concept of "face work" (see below, page 38). GPs typically enquire about AOD use in indirect or non-threatening ways, use closed questioning, put forward mitigating statements for patient agreement and accept understatements of AOD use. Patients minimise or give socially acceptable answers out of reticence to reveal what they perceive to be socially or legally unacceptable behaviours or for fear of judgement. The sociological concept of face work provides a useful exploratory framework for the finding that although both GPs and patients can be observed to orient to the importance of AOD use and impacts on health, they often find it problematic to discuss. Socio-legal constraints may also add to the observed interactional delicacy, with patients naturally reluctant to divulge illicit drug use and GPs reluctant to document this, particularly as any official request for medical records might threaten patient confidentiality. The role of face work is discussed in depth later in this report.

GPs confirmed this when interviewed, when they said that they would avoid entering into some AOD discussions due to the sensitive nature of these. It is unclear if that consideration of sensitivity represents a real barrier as GPs do routinely discuss other sensitive issues with patients. Avoidance may also represent a previously described GP concern about opening a 'can of worms' in a consultation [15]. Alternatively, sensitivity may be a justification for not venturing into an arena that the GP feels ill equipped to handle.

### *Clinical factors*

Clinical factors also hamper free and full AOD discussion, and these include the acuteness of the presenting complaint and the need to prioritise or triage from amongst multiple topics that may be raised for discussion during the consultation. Each of the interviewed GPs nominated time constraints as a barrier, but in this sample of doctor-patient interactions, the length of consultation did not appear to influence presence or absence of AOD discussion in the consultation. Time pressure

may also come into play if GPs have to also seek examination findings and arrange follow up on the presenting complaint with the result that that AOD topics cannot be attended to when they are raised, necessitating a further appointment to discuss a topic later. Non-verbal and body language cues may tell the GPs that a particular patient before them is unlikely to be motivated to return if they try to discuss AOD issues, and therefore may decide to not even suggest this [37].

As already alluded to above, GPs may feel ill-equipped: lacking confidence in their ability to challenge the patient without damage to the therapeutic relationship; being vulnerable due to level of AOD knowledge; being unfamiliar with management guidelines or referral options; thus inhibiting any in-depth discussion. In some instances the GP may not recognise the need for AOD discussion given the particular clinical presentation. If so, this finding has implications for GP training and continuing professional development. Alternately, GPs faced with a busy consultation agenda may choose to just deal with the topics that are already "on the table".

AOD topic avoidance may be passive or active. For some GPs past experience with difficult AOD consultations may have been negatively reinforcing. In that instance avoiding opportunities for AOD discussion may be a personal strategy of that GP to minimise risk of uncomfortable confrontations in future interactions.

The two topics most commonly dealt with in our sample (alcohol and tobacco) represent those for which GPs have good access to tools and training. A gap in GP knowledge skills and tools for addressing prescription drug misuse in New Zealand has previously been identified [23]. Clinical tools are available for screening for other, illicit drugs of abuse (see appendix 2). If the GPs represented in this consultation sample were aware of such tools there may be interactional, clinical or systems reasons that they do not use these. The level of community-based AOD use in NZ, as identified both by case finding studies based in General Practice settings [38, 39] and by community-based drug use surveys [6] indicate that opportunities for discussion about other drugs of abuse could be expected to arise within a sample of 171 consultations.

### *System or policy factors*

System or policy factors include the arrangements in place for funding GP consultations, the work place practices and policies, any General Practice systems to encourage routine disease screening and also disease risk screening, or policies for

allocation of consultation time and for flexibility to extend a consultation if a time-consuming issue arises in a consultation.

Primary care remains significantly a “user-pays” system in New Zealand. This funding arrangement makes it very difficult to ensure that a follow-up consultation will occur when the main agenda for that follow-up is doctor-driven and especially when the patient is not greatly motivated to address that agenda. In addition, the patient will usually be expected carry at least some of the cost of further consultations. This creates a perverse incentive for the patient to avoid additional GP consultations unless there is a new patient-centred motive to want to return to see the doctor.

Some GP practices will have a policy of reduced fees or even not charging a patient to return for a subsequent consultation on the same problem within a short time-frame. However AOD follow-up is less amenable to this form of encouragement due to the time required to bring about and sustain addiction-related behaviour change.

Some practices have a policy of encouraging patients to attend the primary care nurse to discuss lifestyle-related behaviour change, which may overcome the cost barriers but not necessarily the patient motivation barriers to seek AOD advice. Use of the primary care nurse does not bypass the need for dedicated consultation time in which to achieve screening and case-finding.

General Practice is a wide-ranging specialty branch of Medicine demanding great breadth of knowledge and skills and a GP consultation will typically cover many facets of the patient’s general state of health and life. This study has demonstrated that complexity within a consultation: the presence of multiple agendas, not only those of the patient and doctor, but also agendas of health service funders and provider organisations with expectations of disease screening (e.g. for type 2 diabetes), disease risk screening (e.g. for 5 year cardiovascular event risk) as well as acute and chronic care management in primary care.

In order for active screening to occur in General Practice consultations for any disease entity, including AOD case-finding, the GP consultation must follow an atypical interactional path, in part at least: one where the patients own agenda is set aside to instead follow the agenda of another agent (the DHB, the PHO, the Practice manger or staff or the GP) namely to complete the formal screening questionnaire or use a case-finding tool [38, 39].

Documentation methods (such as note typing when the doctor is not a touch typist) can have a significant impact on the consultation flow, and this was noted in this

sample. On the other hand writing up the clinical notes after the consultation has ended carries some risk of economy of note-keeping and omission and recall errors. Without documentation there is no cue to inform a future consultation and consequently important AOD issues may be lost to follow up. Lack of AOD documentation in the medical record may also court future medico-legal consequences.

The ethical principles of Non-judgement and Beneficence and the desire to preserve the doctor-patient relationship may go some way to explain GPs face-work and less pursuant approach to AOD.

### *How this fits.*

The results of this study are consistent with prior studies [17, 24, 40-42] in particular in regard to the discomfort of the GPs with AOD discussion [17, 41]. It is recognised that even when patients divulge information about their drinking, this is not always taken up by the consulting GP [17, 42]. The difference in the way that smoking and drinking advice is given and received has also been noted previously [17, 40]. Other studies have not analysed influential factors as either interactional, clinical or systems. It is somewhat artificial to try to do so as many of these factors are clearly linked and can be overlapping influences within the consultation.

In the NZ primary care population the prevalence of nicotine dependency, problem drinking, alcohol dependency and other problematic drug use has been found to be 14.7%, 12%, 1.8% and 3% respectively [38] . In addition, in the NZ General Practice setting, about 20% of GP patients will respond positively if asked if they feel the need to cut down their smoking, nearly 11% will sat that they feel the need to cut down their drinking and 2.8% to cut down on their other drug use [38, 39]. Therefore it is reasonable to expect to uncover illicit drug use as well as tobacco and alcohol use in a sample of primary care patients, if the right question is asked.

In this selection of consultations the discussion of "other drug" use was not about illicit substances such as cannabis or methamphetamine but about caffeine and prescription drugs (sedatives and analgesics). Lack of questioning of patients about illicit drugs is clearly an issue of concern for the health sector and for the Ministry of Health, especially given the visibility of cannabis and methamphetamine and 'party pill' use in New Zealand society [6].

It is clear that GPs accept role legitimacy and do know that giving AOD advice can be a positive contribution both to their patient and to the community. However, this study has shown that GPs choose to handle AOD topics differently to other health topics due to perceived topic sensitivity and concern over time required to do so properly, a finding which is consistent with other studies [24]. This approach will inevitably have flow-on implications if doctors in training do not see AOD topics handled being appropriately by their tutors or mentors [18].

### *Understanding face-work*

We propose that the results of this study and prior published work mentioned above can be explained in part by the sociological concept of "face work". The concept of face as originally put forward by Goffman [21] is the public self-image that "a person effectively claims for himself (sic) … [which is] delineated in terms of approved social attributes". No utterance is neutral in terms of face which must be constantly attended to during interaction [21]. In health settings the importance of face work has been much studied in the interactions between nurses and patients as in the examples of J Spiers [43]. All such interactions, including GP-patient medical consultations, are "saturated with face-work" [44]. In this sense, a consultation needs to be considered as more than simply the delivery of a service: it is a complex interactional accomplishment.

Interactions involving AOD topics can cause apparent discomfort in the patient and the GP will often empathise that it is hard to give up, make jokes to lessen the apparent seriousness of the topic, and/or change the topic abruptly. Where a GP has regarded the sensitivity of the topic as a potential threat to the patients' 'face', he or she will help to save face for patients by avoiding or minimising, empathising, normalising or even joking. In doing so, GPs run the risk that the AOD issue will not be explored openly and fully with the patient. Consequently AOD advice, if given at all, may be heavily mitigated. Both parties use humour and denial or minimise to lessen the mutual face threat. The patient also retains face by giving socially acceptable answers and providing the GP with a reason to end the AOD discussion.

It is pertinent to observe here that in the sample analysed for this study, the consulting GPs do not routinely use well-established Brief Intervention techniques that were designed to give AOD advice under time constraint such as in primary care settings.

Brief Intervention has been shown to be effective in consultations where time is limited [9].

The personality and consultation style of the individual GP will undoubtedly also influence how an AOD discussion will proceed. However a more systemic explanation for non-use of screening tools is that formal screening tools such as CAGE or AUDIT (see appendix 2) consist of pre-specified questions which do not lend themselves to the reality of the natural free flow of consultations. Previous research by the ARCH Group has demonstrated that the type of interaction which results when standardised tools and protocols are used is quite different to the interactional patterns typical of well-functioning naturally occurring medical consultations [45]. This is in line with international research which shows that task-focused formulaic interactions tend to constrain the usual responsiveness of health professionals to patients. For instance, in a study of nurses using a diabetes review check-list, Rhodes et al [46] showed that the clinical agenda of the check-list consistently superseded the patient's agenda. In addition the checklist led to interactional difficulties, where questions were asked out of context and deviation from the checklist was discouraged. The focus on completing a certain task in a pre-defined routine sequence has also been shown to make nurses less responsive to the topics and concerns raised by patients in other contexts [47], particularly where institutional documentation is involved, and the way forms are typically designed often encourages "pursuit of a particular (type) of response" [48]. GP's are motivated to maintain empathy and appear to be patient-centred, and are therefore less likely to adopt tools that are in conflict with the patient-focused consultation model.

In patient centred consultations, outcomes for the patient are improved because the patient drives the agenda, feeling heard and acknowledged and understood [49]. This places the GP in a dilemma in facing conflicting behavioural drivers where an AOD topic is to be discussed within a consultation: to appear to be accepting and non-judgemental yet to fulfil the duty of care in pointing out hazardous AOD behaviours and offering help. In our examples GPs are seen to accept the explanations of the patient with very gentle challenge, taking opportunities to change the topic abruptly but not attempting to revisit it later in the consultation. This pattern of an entirely patient-centred method of consultation can raise ethical issues, particularly if the patient's interpretation of what is wrong or important is erroneous [50] and especially

if that consequently leaves a health risk not well-managed, to the ultimate detriment of the patient's future state of health.

In keeping with the patient-centred objective, overt AOD discussions that are first raised by the patient are usually more successful in helping the parties to achieve discussion and advice. Even when AOD topics are first raised by the patient, that patient may need to be persistent and raise the topic again, several times over, to get the discussion underway. The GP may continue another line of enquiry without taking up the AOD topic, or may abruptly stop the AOD discussion before the exact nature of substance use is established, or may move an embryonic AOD conversation back to other issues. An AOD topic may not always appear in the wrap-up of advice at the end of the consult, nor necessarily be documented in the medical notes, even if it clearly was on the patient agenda.

It is not possible with this given methodology to see into the black box of GP clinical reasoning. In some cases where AOD discussion took place and intervention was indicated but not offered, it may be that GP has judged the patient to still be in the pre-contemplative stage [51], deciding not to pursue the topic further at this stage but to roll with perceived reticence or resistance, or simply to sow some seeds for change in the mind of the patient. However, in the absence of any questions in the consultation to ascertain the patient's level of motivation to change, it is possible that this explanation itself may represent an uninformed assumption made by the doctor about that patient.

Similarly, in covert presentations where the nature of the clinical presentation provides an opportunity to consider a link to AOD use, it is unclear whether GPs appear to fail to recognise the possible covert presentation or whether they do recognise it, but instead choose to deal with topics already overtly on the table, in preference to raising new topics (unless first mentioned by the patient). This may be a result of the GP orienting to a patient-centred agenda, where AOD avoidance is justified, in the GP's mind, in order to adhere to that patient's own agenda. This may be the case especially if the GP has judged AOD issues to be not sufficiently important to raise with the patient on this occasion, particularly if time is already very pressured. Alternately it may represent a pragmatic response to prior unsuccessful attempts to raise the topic with the patient.

Leaving the topic for uptake in a later consultation runs the risk that the same inhibitory conditions to discussion may still prevail later, namely: AOD still not on

the patient's agenda; time constraints; player discomfort; or competing demand with seemingly more important topics on the table for discussion.

### *Avoiding clinical assumptions*

Clearly GPs make conscious and unconscious judgements and assumptions about patients and the care they require at any given time, and this does influence whether or not an AOD enquiry is made, how and to what extent advice or intervention is offered [52, 53].

It is possible that a GP who feels they know their patients well may assume that they know their current AOD status and may also assume that they therefore do not need to raise it again in discussion. Prior knowledge of the patient may lead the GP to assume that the in-depth discussion can safely be limited to just one substance of abuse (e.g. to ask about smoking but not about alcohol use). Prior experience may also lead the GP to seek to avoid in-depth discussion if the patient has previously denied problem use or has in the past blocked discussion of a possible problem.

There may be a valid reason for not including an AOD enquiry in circumstances where current information about the patient has been recently established, for example if a new patient was recently screened or if this present interaction is a follow up consultation. However, AOD addiction is a chronic relapsing condition and problems with use can come and go; in particular non-smokers may relapse and previously non-drinkers or light drinkers may begin to drink differently under different circumstances.

The top-down strategy approach to public health service delivery carries implicit expectation that GPs will recognise this dynamic, and take the opportunity to enquire into AOD behaviour change and refer appropriately. This expectation was not met in this sample of GP consultations. Even this relatively small selection of consultations included examples where the patient's circumstances had changed and AOD-related behaviours had changed with them (smoking relapse and social pressure to drink more alcohol).

Gender bias is evident in the GP selection of patients for AOD discussion, which is consistent with prior findings [41]. Gendered AOD assumptions may also explain why there were more male than female patients in our selection of consultations. As stated in the GP interviews, GPs also make behavioural assumptions based on patient

age, such as linking youth drinking to sexual health risk, although in reality those risks might apply to any age-group.

### *The third person effect*

As mentioned earlier, systems, clinical and interactive factors are not mutually exclusive but overlap and compound each other's influence. The third person effect is an example. Opportunities for AOD discussion are especially difficult to take up where a third person, such as a carer/relative/partner/friend/support person is also present in the consultation. The GP will be placed in a position of having to judge if an AOD discussion seems appropriate because someone else is present. As the examples have shown, that third person sometimes may have an additional personal agenda of their own that will impact on any attempt by the GP to discuss the AOD topic with the patient.

The virtual third person, the interface of technology of with the human interaction, was also very evident in these video recordings. Use of electronic medical record systems causes constraints and disruptions to the flow of consultation, which are very evident to the viewer. These constraints include GP typing ability to write up the notes during the consultation, ease of locating electronic information and appropriate forms, completing documentation, and at the same time attending fully to the content of the discussion [29]. The computer hence becomes the third persona in the room, potentially distracting the GP from the finer nuances of the doctor-patient discussion. System factors may account for many AOD missed opportunities, and these include some largely unavoidable challenges such as the drive from health service funders and provider organisations alike for health professionals to embrace e-medicine. The constant emergence of new technology and new applications for use in primary health care place demands on GPs to find time to familiarise themselves with the electronic applications (as they may have been designed by well meaning others to save time), and use of technology also requires GPs to adapt their consultation style accordingly. Computer use, proficient or otherwise, can be seen to have an impact on how the consultation is conducted and this may influence how successful the overall consultation is in achieving discussion about the desired health care endpoints.

Although not a major focus of this study, we also noted a related phenomenon: that when AOD discussion took place it was not always well documented in the medical notes. RNZCGP guidelines [14] and medico-legal recommendations [54] alike advise

GPs to take care with clinical documentation. Documentation of AOD discussions will inform the next health professional to meet that patient about the opportunities to discuss AOD. There are risks for both the patient and doctor when an AOD problem with subsequent significant consequences is not documented. It would be difficult to defend a complaint medico-legally if the GP had not documented if and how clear AOD advice or early intervention was offered [54]. Non documentation also adds a double jeopardy since, as this study has shown, AOD discussion is already difficult to establish within a primary care consultation.

There may be additional difficulty for the GP to find an opportunity to gather AOD information at some other occasion, because under the user-pays model the patients may incur a charge for subsequent consultations. Patients may not be motivated to attend their GP again just to discuss substance abuse. Moreover, a thorough AOD history-taking or management consultation may be lengthy, and GPs have limited means to recover time costs of lengthy consultations, other than from charging the patient for the additional time. GP workforce shortages may also impact on the consultation time available to each patient and on the availability of conveniently spaced appointments for follow up consultations.

While the GPs interviewed in this study mentioned time constraint as a barrier to AOD discussion, there is some evidence from these examples to indicate that at times this is not as much an actual barrier as a rationale for not including AOD discussion. Some medical consultations in this sample were short and finished earlier than the standard 15 minutes allocated, but the remainder of the available time was spent engaged in relationship-building and especially in social talk about the doctor, patient or community events. That ‘spare’ time was not spent in AOD discussion; the interactional delicacy of AOD topics makes these less suitable for relationship-building purposes. The interactional drivers that operate in prioritising topics for conversation in ‘spare’ consultation time require further investigation. This finding is also consistent with findings from interviews with medical staff about their decision to negotiate AOD-related topics onto the consultation agenda [24].

### *Limitations*

This study can analyse only the interactions that can be seen and heard in recordings of naturally occurring consultation. The data set was also limited to a relatively small sample of one-off consultations, which does not allow judgements to be made about

the way that AOD issues might be dealt with over time in a continuing care relationship between the GP and regular patient. This project has also shown up the complexity and the nature of GP decision making as a black box which cannot be looked into. While the video viewer can see body language, hear the words spoken and sense nuances, observers cannot see into the minds of the participants of these consultations. The GP interviews have provided some insight into that black box and added their perspective on what GPs think about conducting AOD consultations. This aspect deserves future study, as does the patient perspective on AOD discussion within the consultation.

Smoking and alcohol consumption are more common behaviours in New Zealand than other drug use [4] but some illicit drug use discussion was anticipated in a sample of this size. Patients in general may avoid discussing illicit drugs use with their doctors because when deciding to reveal illicit drug use they also have to trust in the privacy and confidentiality of their medical record. This consideration could provide a source of bias for this particular study if, in the process of consenting to video recording of their consultations for the studies from which this data was drawn, patients wishing to discuss illicit drug use topics with their GPs may have decided not to participate or else may have opted not to discuss their drug use on that recorded occasion.

## Conclusion

This exploration of naturally occurring consultations has indicated that the expectation that GPs will routinely screen for AOD problems and opportunistically deliver brief interventions within the same consultation may be unrealistic.

While there are many apparent opportunities to talk about AOD in the consultation these opportunities are not always taken up. The main reasons given by GPs for this are time constraints and the sensitivity of the topic. However, as indicated historically for smoking cessation initiatives [55, 56] primary care interventions can be very effective for substance use. The Ministry of Health Tobacco Control Strategy is a comprehensive package of initiatives operating across the breadth of the health sector. The key to effective primary care delivery of smoking cessation advice was the dedication of consultation time in which targeted AOD screening or intervention could be prioritised, therefore facilitating the opportunities and improving the chance

that those conversations would take place. This smoking cessation campaign encompassed provision of dedicated funding for several different complementary primary care initiatives: funding community-based providers to run smoking cessation programmes; accessibility of free counselling through Quitline; availability of subsidised nicotine replacement therapy; quality resource support for the primary care practices; and ongoing publicity through public health campaigns.

In contrast to these successful smoking cessation initiatives, although free phone counselling is available nation-wide in New Zealand for other alcohol and drug problems via the Alcohol and Drugs Helpline, 0800-AA-WORKS (Alcoholics Anonymous), Lifeline and Youth Helpline, funding is a barrier for those callers who also need to access their GPs for assessment of associated health problems, to access pharmacotherapy, for referral to rehabilitation programmes, or to arrange off-work certificates.

There is relevant literature relating to competing demands in the General Practice consultation [37] especially noting that the potential of the GP consultation to engage with preventive activity is unlikely to be activated on all occasions [57] but this does not imply deliberate neglect. Refraining from always following up on AOD issues also represents a sensitive and patient-centred approach to develop and maintain the doctor-patient relationship, as already noted by other research teams [33, 52, 58].

There is evidence from our data that AOD discussions may be awkward and, when advice is given, the message not always clear. Both doctor and patient may minimise stated intake when discussing alcohol and tobacco consumption and do not readily discuss cessation, particularly with alcohol. This apparent avoidance of use of opportunities to discuss AOD in the consultation is accompanied by complex interactions of face saving on the part of both doctor and patient, but topic sensitivity is not limited to AOD discussions, nor to GP consultations [32, 53, 59, 60].

Such interpersonal face work may be in place to protect the integrity of the patient, but alternately could serve to protect the GP where confidence or competence in AOD knowledge is not strong [18] or when the nature of the personal interactions make the GP reticent to enter the discussion on this occasion [26]. From analysis of the data it is not always possible to know why AOD topics are not raised or pursued, why advice is not given or an early intervention offered. This is an arena for further research.

The nature of AOD addiction is that it is a chronic relapsing condition; therefore screening for this once is insufficient, and periodic review of the AOD status of

established patients is appropriate. A change in the recreational substance consumption pattern of individuals should be acknowledged and explored to enable brief intervention, advice, identification of any developing problem, harm reduction and management where appropriate. Our findings therefore also carry implications for both GP vocational training and continuing professional development.

Existing primary care guidelines are clearly not used often, nor used in the manner in which they were designed. These need to be adapted to better fit the patient-centred face work approach used by GPs. Guidelines and tools for screening and brief intervention in primary care carry the expectation that GPs will use all opportunities to discuss AOD in primary care, but that expectation is probably unrealistic.

Non-use of protocols is seen elsewhere in clinical practice [45] and since there may well be good reasons for seemingly "bad practice"[61]. The reasons for this deserve further exploration.

This project has also raised the intriguing question of how much responsibility lies with the GP to make use of opportunities to discuss AOD in a patient-centred interaction [50]. If the patient has not raised the topic or closes the discussion down rapidly is there any obligation on their doctors to insist on continuing the conversation just to give unsolicited advice?

Finally, financial incentives work at the General Practice level to ensure effective screening and intervention occur for chronic diseases like CVD and diabetes in primary care, raising the possibility that a targeted incentive approach may also work to improve uptake of opportunities to discuss AOD in General Practice. Primary Care AOD discussion does not currently sit comfortably within a chronic disease model, nor in targeted mental health initiatives (Compass Health personal communication) and therefore represents a service provision gap. The potential barrier of the current user-pays model deserves consideration, in particular the possible advantage that could arise from a funding model that meets the cost to individuals for dedicated consultations to discuss AOD issues with their GPs. The cost of such an initiative should be compared to the cost-effectiveness to their communities.

This project, using interaction analysis to explore what actually happens in AID consultations between the patient and GP, has produced as many questions as it has answers and these are deserving of future research. There is considerable scope for more studies on the wider data set with in-depth analysis of the specific consultation patterns that have been identified in this project.

## Recommendations

- Clinical guidelines for primary care AOD screening and brief intervention should be revised to take into account the NZ GPs style of consultation, namely the patient-focussed method.
- Guidelines should be clear about realistic documentation strategies with regard to AOD use, and frequency with which information is updated.
- Primary Care funding models should be explored to better address the cost barrier to effective discussion of AOD issues with patients.
- A cost-effectiveness analysis should be undertaken to explore alternative funding models, including targeted incentives for AOD discussion in General Practice.
- GP vocational training and continuing professional development programmes should be revised to take into account any changes resulting from the above recommendations.

# Appendix 1. Consultation Examples

***How to Interpret Conversation Analysis Conventions*:**

// \ and / \\ indicate areas of overlapping talk
= indicates continuation of prior conversation line that the person was taking
+ indicates areas of short pauses
( ) breath aspirate eg sighing, gasp
(3) a 3 second pause
*Italic* text indicates emphatic speech
**Bold** print highlights areas which illustrate the point made

## Example 1. Drug and alcohol history-taking

GP: ((tut)) alright and um oh we normally just ask a few few questions to see how people are and how things are going
PT: yeah
GP: hah hah
PT: ( )
GP: **er do you smoke**
PT: nope
GP: nope that's great and other things
PT: I dri//nk\
GP: /**take drugs**\\
PT: n- I drink but nah nah but I don't do drugs
6:00
GP: okay that's good (2) would you **drink a lot** (or/m)
(3)
PT: nah not really 'bout once a week maybe + oh yeah but not never <u>not much</u> though not much
+
GP: when's it Friday night or Saturday night
PT: yeah maybe those going out nights yeah
GP: and **do you tend to get drunk** on those evenings
PT: sometimes //but yeah\
GP: /sometimes\\ + would how m- what do you drink what's y-
PT: oh mainly drink vodkas
GP: vodkas
PT: yeah
GP: how many would you have
(2)
PT: twelve bottles
GP: ((in surprised tone)) *twelve bottles of vodka?*
PT: oh nah oh //nah\ nah nah nah nah I'm talking about like you know like a like=
GP: /shots? hah\\
PT: =a twel- a twelve- er um twelve pack thing like you know bottles li- not like vodkas like you know straight vodka//s yeah like lolly drinks yeah\ yeah
GP: /oh I see ( ) yes\\
GP: twelve of those?

PT: yeah
GP: okay
PT: hah hah
GP: and **do you do you drive after that** or do you have someone drive you home
PT: nah we + maybe catch the bus cos we normally go town sometimes yea//h\
GP: /((quietly)) *okay*\\
PT: bus or taxi nah never drink and drive
GP: and **do you sometimes not remember what happened** the night before
PT: yeah I do but some of the boys don't they get too wasted
GP: yeah
PT: mm
GP: and have you **ever done anything silly because of the drinking** + nah=
PT: =nah
GP: ((quietly)) *okay* ((inhales)) and otherwise your mood's quite good haven't been feeling low or anything like that?

**Example 2. A difference between smoking and drinking advice**

Comment: In this one consultation advice was given on both smoking and alcohol

**Example 2a First mention –smoking cessation**

GP: in terms of the risk load on your heart //that's always there with smoking\=
PT: /yes yes\\
GP: =the good news is that **if someone gives up smoking at any age**
PT: yep
GP: then the risk to the heart er comes off very quickly
PT: yes
GP: so within about a year
PT: yes
GP: um you're back to the same sort of risk as if you you haven't been a smoker which is you know good good news all round + in terms of lung damage um the the change wouldn't be as as quick but in fact because your lung tests are pretty reasonable now um again stopping smoking from a lung point of view would be a good idea
PT: oh sure
GP: be- because
PT: they'd love me
GP: um they would love you //(   ) right\ and they and they haven't the smoking=
PT: /(   )\\
GP: =hasn't really caught up with them yet
PT: no
GP: but if we're looking at this is the sort of pre sixty year check
PT: yeah
GP: what you could predict is that over the next ten **years if you carry on smoking a pack a day**
PT: no
GP: then it will **//it will catch up with you**\ yeah
PT: /(   )\\

PT: yeah of course it will

**Example 2b Second mention –alcohol reduction, seemingly condoning use**

GP: totting that up through the week ((exhales)) um ((voc)) **in terms of the recommended alcohol levels now and and dose if you like it's a bit over //not a lot**
PT: /of course\\ yeah
GP: **but what I'm saying is not not a lot**
PT: yeah
GP: that um added up probably you would be they they measure it by units of alcohol and you'd probably be doing somewhere between sort of twenty eight and thirty units over the course of a week where the recommended level for a for a man would be twenty
PT: uh huh
GP: so
PT: ( )
GP: it probably means that if it was three or four and on a good night five or six you peg that back to sort of two or three and on a good night //four\
PT: /three or four\\

**Example 3. AOD use (alcohol) alluded to but the opportunity for discussion is not taken up.**

PT: um (3) the- yeah er I don't know sometimes + just get a + sharp piercing pain in my chest + just for a few seconds and then it it goes away
GP: right
PT: um (3) but it's ((GP types))
(12)
GP: er any particular pattern to them when they come on or
+
PT: s- seem to be random //um\
GP: /right\\
PT: + the other day er ((drawls the 's' sound)) Saturday + you know it happened three or four times a day just for a f- maybe two or three seconds + //and then\
GP: /and so- so they\\ really that short most of the //time are they\\
PT: /yeah\\
GP: right
PT: and then yesterday I mean none at all so + but **I had been out + you know in the pub on Friday night if that's any + I wonder if that's a + coincidence**
GP: all right then no we'd better have a er + need to have a look at that I'm just going to put this machine on + pause
(BP machine applied)

Comment: In this example the patient hesitatingly mentions the pub and Friday night, flagging the significance to the GP by saying "you know", but the GP does not take up the discussion, instead proceeding with the consultation in a technical manner.

**Example 4. Asking in context of screening**

GP: but not your mum//or\ aunt or anyone right okay um + ((tut)) do you smoke
PT: /no\\
PT: no
GP: **ever smoked**
PT: no
GP: hah hah **and do you drink**
PT: once in a //blue moon really\
GP: /bl- hah hah\\
BOTH: ((laugh))
PT: yep never really heavily so
GP: physically active

**Example 5. Limited advice to keep drinking under control**

GP: …at the moment just get a bit of a baseline from that point of view ((drawls)) *um* and ye- if you're a non **smoker um not drinking a hell of a lot** weight's little bit //high\ but not not massive um so (       ) those are the the=
PT: /yeah\\
GP: =three **major things really to keep under control** and you're obviously ah keeping a a good eye on that at the moment //so\ we'll get those checked=
PT: /mm\\

**Example 6. Patient puts drinking and smoking forward almost apologetically, as explanations of presenting complaint**

GP: yep okay that's that's good ((inhales)) um and no untoward sort of faints dizzy spells anything like that or
PT: I've said just that I've had a couple um they were a bit scary it was it was the case I'll give you **I'll try to give you the best example the honest example**
GP: yep
PT: um is of perhaps getting up in the morning and **maybe I've had a reasonably heavy night out social drinking**
GP: mm mm
**PT: and smoking**
GP: mm
**PT: are both there um**

**Example 7. Patient gives smoking as a possible contributing factor**

PT: um (2) the breathing I guess I mean I- I've um + ((tut)) I'm finding it difficult to hit the + the high notes //you know\ because I just can't ((inhales)) get=
GP: /sure\\
PT: =down there to ((inhales)) **//but I-\ I know I'm a smoker and all that you know**
GP: /to get it out\\

**Example 8. GP Dysluencies when asking about alcohol**

GP: yep + **and (3) so in terms of other things at the moment for you with your blood pressure and and so on um ((clears throat)) has the the alcohol side of things is that (2) still drinking regularly and**
PT: yeah I sort of do yeah
GP: how much would you drink on a regular night
PT: oh (2) it depends I can't seem to get enough of it
GP: okay
PT: but it doesn't + I drink gin and water I can sort of drink a bottle of gin and water in a night and
GP: **and you'd be doing that most nights or**
PT: yeah sometimes I have a beer it just depends how I feel you know
GP: right okay
PT: if I I can go in a pub if everyone's drinking beer it's a bit hard to sort of drink there drink
GP: right

**Example 9. GP enquiry with dysfluencies and backing down**

GP: um ((tut)) how much do you think you would drink then in an average week if you
PT: ((tut)) oh ((exhales)) well it depends i spose if you're going
//out at night but I mean I- I mean\ ((inhales)) I mean we had a gin and tonic=
GP: **/I know it's hard to know (what's) an average week but**
PT: last night one ((drawls)) //*um*\ that was probably the only drink we've had this week
GP: right //okay so its o- so\
PT: /so you know its not ((inhales))\\
GP: //less\ than seven drinks a week=
PT: /(its just)\\
GP: =or //so (        ) average\ **no that's that's absolutely**=
PT: /yeah yeah yeah\\
GP: **=//fine**\

Comment: GP goes on after this to continue reassurances multiple times.

**Example 10. AOD topic suddenly dropped, to the surprise of the patient**

GP: I do think you know if you could look at certainly cutting down a fair bit um ((exhales)) and you know I mean I would have thought if you if you'd managed to get down to half of what you're drinking now on a regular basis then there's that's still
PT: yeah
GP: you know sort of half a bottle of gin um //its not as if you going without\
PT: /well it's probably\\I'm exaggerating //(     )\ that's a big night=
GP: /okay\\

PT: =I might have six seven
GP: okay
PT: corona and lime
GP: yep
PT: (which isn't)
GP: all right
PT: and then I might have half a dozen doubles of gin or //something\
GP: /okay\\ **so + + you you reckon it was sort of ten minutes or so a couple of days**
PT: **back to this again?**( *In the video recording the patient points to his eye* )
PT: it mightn't have been that long + (     )

**Example 11. AOD discussion stops suddenly, but patient does not challenge**

GP: I- I think it probably is worth thinking about a little bit of a mood //lifting\=
WF: /mm\\
5:00
GP: =medicine again + now that hopefully we've got the alcohol (     ) //out\=
PT: /mm\\
GP: =of the + the equation um um it's going to have a better chance of working **when you are drinking a fair bit it pretty much blocks a lot of the effect of that //medication**
PT: /mm\\
WF: yeah
GP: now ((drawls)) *um* (2) ha- now **did any appointment turn up** from
WF: ((quietly)) *no=*
GP: =no=

**Example 12. AOD discussions did not touch on HCV transmission risks**

**12 a First mention – new patient says he has hepatitis C**

PT: lymphoma yeah ((inhales)) um ((clears throat)) ((tut)) I still had um hep C **I was diagnosed with hep- hepatitis C in two thousand and two**

Comment: Patient gives a history of lymphoma and admits to HCV infection but that particular conversation does not continue and the underlying reason for HCV infection is not subsequently explored.

**12b Second mention -Patient admits excessive substance use for panic attacks**

PT: no that I remember um I + just what happens ((drawls)) *is* I um I buy strong cigarettes //um\ cigars smoke them like cigarettes and I buy buy alcohol=
GP: /mm\\
PT: wine or beer and I go through about **five cigars with a couple of bottles of beer or about five glasses of wine to + um in the evenings to get me on this on a level ((tut))** and then and then that gets me back to a s- um i spend the reason why I'm (all the time) by myself in //the\ evenings you know like I've just been=
GP: /mm\\

Comment: The patient had also previously given a past history of depression, but GP does not pursue the alcohol or smoking discussion in the light of the mental health history. In particular the GP does not caution patient against drinking alcohol with active viral hepatitis.

**12c Third mention -Patient later mentions smoking again, but GP offers no advice**.

PT: else we can do this and um I value my work and I also value myself and and that I want to do the best you know and um + I'm already + **I've got slight chest pains as a result of my smoking and um + yeah its it is through my smoking and I (love) cigare- um strong cigarettes like tobacco that I was smoking when when I was overseas is that French cigarettes and they triple the um //the\=**
GP: **//tar and**
PT: **=the tar and everything that you get in New Zealand you can't buy that in New Zealand any more + so I don't do things by half measure** you know um at all and in this relationship I do- either like to be in it or out of it and //I I\=

**Example 13. Patient tries three times to start a meaningful discussion about his drinking**

**13a First mention –wine discussion**

Comment: Diabetic patient presenting with nausea and night sweats. Discussion begins about overdoing the chocolate intake but moves on as patient tries to suggest alcohol intake as a contributing cause:

PT: **well //I'm might have might have I\ might've been overdoing a wine**
GP: /bit upsetting your stomach yeah\\
GP: mm
PT: I've always overdo wine if I get into a red bot//le\ or a bottle of ((inhales))=
GP: /yeah\\
PT: =yeah um chardonnay that's um very um mm palatable
GP: did you have a a lot of that over the weekend (2) which may've upset your tummy or hard to say
PT: I couldn't blame it on that //no no (no I don't think I could)\
GP: /yeah no s- okay so how much would\\ you have had over the weekend as far as the the old wine goes
PT: well my friend gave me a (4) bottle of aussie red um + and I think I drank some of it on Sunday
GP: okay
PT: + but er + there's still some left and I pump it up and keep it from getting air //in it ( )\
GP: /okay so so\\ **you didn't drink the whole bottle in one night or any//thing no** okay\=
PT: /no no\\

**13b Second mention –admits there was whisky too**

Comment: Patient tells GP that he was given a bottle of whisky for 80th bday. Then again patient says:

PT: **might've been the whisky** ((pronounced *whask*ey)) perhaps I //should-\
GP: /oh d-((sighs))\\

Comment: The GP continues a clinical examination without taking up the alcohol discussion.

**13c Third mention- when GP finally asks about amount patient drinking.**

GP: bit of a check ((patient dresses, GP checks records on computer)) (59) yeah ((tut)) so how much are you sort of drinking at the moment **how many whiskys would you have**
PT: **how many g- er bottles of wine do I get though a day** ((laughs))
GP: yeah well how how much would you drink in say a w- we- standard week if you kinda
PT: ((inhales)) oh //I'd drink two or three\ bottles is in a week

Comment: the patient corrects the GP's assumption about a preference for whisky, laughing off the embarrassment of having to do so, as he has already previously told the GP that the whisky was just a birthday treat**.**

**Example 14. Patient raises AOD topic (caffeine) a few times before it is taken up by the GP**

**14a First mention – patient tentatively explains the link**

PT: and food related I- I'm sort of investigating all that myself I suppose with what foods I find I can eat and //what I can't eat\ and seem to be bread=
GP: /mhm mm\\
PT: =and um + yoghurt maybe I'm sort of (some) lactose intolerant or //something\
GP: /mm\\ mm
PT: (I'm sort of) + **if I have um (2) some sugar drink like a Red Bull**
GP: yep
PT: then I'll have bowel issues //but\ if I'm + if I'm having sugar free it's=
GP: /yep\\

**14b Second mention- this has happened before**

PT: /that would be about a year ago\\ cos I think it was just when I came back from overseas last year
GP: it was November
PT: yeah + //well\ I think it was **too many Red Bulls and too many V drinks**=
GP: /so\\
PT: =//and things and\
GP: /yeah there's\\ a lot of caffeine in those //drinks\ how do you find it if you=
PT: /yeah well I\\

**14c Third mention- patient becomes more overt about link to caffeine intake**

PT: /yeah so I've figured\\ out it's like Red Bull and
GP: sure
PT: **cos I was drinking a lot of Red Bull //and V**
GP: /were you\\
PT: yeah
GP: you're not quite their target market are you
PT: oh addicted
GP: are you
PT: ((laughs)) tastes quite //good\
GP: /well\\ it's caffeine that's what- is it the taste of the caffeine or what is it that= keeps //you addicted\
GP /its both\\ I think it helps you focus you //know\

**Example 15. GP dysfluency in challenging patient in AOD discussion**

**15a Patient requests a prescription and GP is uncomfortable about it.**

PT: are you able to give me a ((pronounced as aye)) um another prescription of (zoplicone) and (diazepam)
GP: yep ((drawls)) *yeah is um e-* where are we I- been a<u>bout</u> a month or so since you had the last
PT: ((tut)) yeah //month and a half\
GP: /lot eh\\ yeah so ((inhales)) wh- how are things are sort of progressing with that i mean are you thinking about moving back up //north\
PT: /(fine)\\ I am

**15b Limited is advice given about wise use of sedatives then Dr backs down**

GP: if your doing it every night ((inhales)) okay really sort of like higher um ( // )\ yeah
PT: /I only do it if I\\
PT: stay awake for an- for an hour or so and //can't\ get to sleep
GP: /right\\
GP: mm kay ((inhales)) so um yeah I mean if if this isn't taking care of it in the short term and we have to think about other sort of ways of how we're gonna sort of deal with anxiety and stuff but //((inhales))\ fairly high stress lifestyle=
PT: /cool\\

**Example 16. Carer contributing to smoking cessation resistance**

CR: she said you're a smoker aren't //you and he\ said yes=
GP: /mm\\
CR: =((inhales)) and she said we won't give you oxygen
GP: ((quietly)) *mm //mm*
CR: /she\\ said you've got to quit smoking for //twelve\ months
GP: /mm\\
GP: mm //mm\
CR: /he'll\\ be gone in twelve //((laughs/cries)) months\

Comment: Eventually the care-giver admits to own relapse and a discussion follows about the carers own health needs.

**Example 17. Patient's wife gets defensive about questions on the patient's drinking**

GP: ((quietly)) mm + + + you're not having too much ((drawls)) er alcohol at all during the day you're not drinking + much
WF: **no just have three little glasses of wine that's all he //has**
GP: /mm\\ how- //(how much)\
**WF: /they're\\ small glasses (you know)**
GP: when you say little just (mm) what- er- how + how long would it take you to get through a bottle
WF: //eh?\
GP: /bet\\ween you how long would it take to get through a bottle between you
WF: ((inhales)) oh we don't ((mumbles)) (in- in- in- ) not a day just half a day
GP: half a bottle a day between you mm okay mhm okay so three or four a week would it be that much
WF: eh?
GP: three or four bottles a week would it be any more than //that\
**WF:** /nah\\ not four bott//les\ eh? not four bottles
GP: /no\\
**CR:** no not four bottles three bottles
GP: mm okay
WF: two two or three=
GP: =mm=
**WF: =((inhales)) but I don't ha//ve\ it every day**
GP: /mm\\ mm mm
**WF: the other half we keep it for the next day**

**Example 18. Patient with falls and alcohol as a contributing factor (this is a continuation of example 17)**

GP: mm hmm mm + because that I mean that er if his coordination is not that flash anyway that might just be enough to make things a bit worse so **you may just need to just cut back on that a little bit in the next little while at least until we get it all sorted out** ((inhales)) I know its probably something you enjoy but I think just in in the short term that's mm ((tut)) alright ((NAMES PT)) so that's that's gonna happen I'm gonna get hold of the neurosurgical doctors today hopefully I'll talk to the registrar and see if we can get it teed up in the next few days and to see you and

**Example 19. Change in work circumstances have changed patient's drinking**

Comment: New businessman to the city. Requesting a repeat of usual medications. Patient mentions alcohol in terms of recent change in work expectations. No advice given on how to avoid new pressures to drink (or eat) more than previously.

PT: =**stuff I don't drink er a lot I do ((inhales)) drink but I** don't drink //in\ excess=
GP: ((quietly)) */mm hm*

PT: =or anything like that not a lot of beer or stuff ((inhales)) I'm probably slightly overweight but the ((WORK PLACE)) down here is um ((tut)) notorious for having foods and nibbles and **things like that** in the office and **its very tempting** so um ((laughs)) that's been a bit of a shock to the system=

**Example 20. Ex-smoker admits that he has started smoking again.**

Comment: Discussion about cardiovascular risk screening revealed smoking relapse. GP asks about this then drops the topic. No advice is given to manage the relapse.

GP =um ((tut)) actually I wonder if (it happens) to your smoking status + recorded
PT: um **it changed last week cos my + th- parents came to visit from ((COUNTRY)) and they bought me a box of cigars**
GP: ((laughs)) in terms of cigarettes
PT: no cigarettes
GP: **you haven't been a cigarette smoker**
PT: no
GP: okay ((inhales)) ((mumbles under breath)) (4) do you have the occasional- er**- and when you have a cigar is this** a- er a several times a day event or …

**Example 21. Joking about smoking cessation**

GP: all right now are you smoking still + //mm\
PT: **/I have\\ to stop smoking ((laughing))** when I got to //( )\
GP: /oh do you\\ you're aren't allowed to smoke well-
PT: so ( ) so happy my husband //( ) that <u>good</u>\ can't smoke
GP: /((laughs))\\
GP: ah + good and that would be a good opportunity
PT: I know
GP: to quit
PT: for a a whole month
GP: mm
PT: so but it's ((laughs)) + ((coughs))
GP: ((typing)) *(4)* right come have a seat and I'd like to check your blood pressure

**Example 22. Joking about alcohol excess**

PT: (but I guess) **disinfecting yourself with vodka is not really helpful is it**
GP: ((tut)) it's tempting
BOTH: ((laugh))
GP: //very tempting\ + but um no probably in the long run it's not going to er +=
PT: /((laughs))\\
GP: =not going to help much no + a little bit of alcohol maybe but er + not a lot
PT: not half a litre
+
GP: no no //no half a litre is + probably overdoing it\
PT: /((laughs))\\
PT: ((quietly)) //*okay*\

**Example 23. Joking about alcohol temptation**

GP: how about your alcohol
PT: yes please //I'd like you to prescribe lots of alcohol\
GP: /hah hah hah hah hah hah hah\\ hah hah
PT: lots and lots ((drawls)) um I had a glass of wine last night with tea
GP: ((drawls)) just a glass //((mumbles)) yeah okay that's good\
PT: /yeah a glass of wine with tea\\ ((drawls)) *um* + last ((exhales)) ( ) before that would have been //( ) glass of wine\
GP: /((tut)) oh ( )\\ that's absolutely fine yeah=
PT: =yeah have a glass of wine with the roast //( )\
GP: /yeah\\ yeah
PT: we haven't gone out and brought <u>kegs</u> or + pallets of wine bottles but um ((louder)) *it's tempting*
GP: yeah //hah hah\
PT: /it is\\ very very tempting I seriously thought about going out and getting a bottle of bourbon
GP: mm ((sound of mouse click))
PT: um but its its a financial consideration
GP: definitely

**Example 24. Joking about reasons for continuing to smoke**

GP: have you stopped smoking yet?
PT: and just a bit of a sore throat <u>no</u> //+ what\ happened? sally has this massive=
GP: /oh well\\
PT: =Haiti idea and what does she do? she goes through duty free on the way back
GP: oh man
PT: so I've sold a couple of packets off without her knowing and she's given me the guarantee that when //the duty free runs out\
GP: **/shh it's illegal\\ don't you know ((laughs))**
PT: **no it's not //((laughs))**

**Example 25. Joking about possibly being alcoholic**

GP: =your liver's probably complaining a wee bit maybe from the alcohol //((inhales)) um yeah\
PT: /oh I'll (grizzle) any anyway*if it's er + er (2) if I er ((drawls)) I* **I must have been a potentially alcoholic ((inhales)) you know I grizzle if I don't have it and I grizzle //if I do**
GP: /if you do\\ ((laughs)) *yeah* so I think we need to check that out to //make\ sure there's=
PT: /yes\\
GP: =no damage going on //there\ and um really just go from there depending on=
PT: /yes yes\\
GP: =what we find but if you can try and pull that er the old alcohol ((inhales)) back a wee bit maybe you know one or two //a night\
PT: /oh yeah\\

PT: **I think ((mumbles)) they w- th- the bottle of whisky ((in a high pitched voice)) where'd I get that anyway somebody //gave it**
GP: /((laughs)) somebody\\ gave it to you

**Example 26. GP tries to overcome patient humour in denial**

GP: and have you (3) thought of quitting the smoking
PT: (hah) + /((laughs)) oh i think about it all the time + yeah\
GP: /hah hah hah hah hah hah hah\\ but what action are you taking
(2)
PT: oh I just //(give up)\
GP: /( \\ thinking)
PT: I give up but you know then I'll feel like a cigarette and I'll (run round and) get another bloody packet + (silly)
6:00
GP: do you want to talk with the quitline or
(2)
PT: no if I can give up I'll just give up //oh I\ (don't) worry about that (2) just=
GP: /oh\\
PT: = a bit of will power that's all + I can't think what I was down here for (2) ((sighs)) (2) isn't it silly + doctor ((SURNAME of another GP)) put me on a course of six pills for …

Comment: At this point the patient diverts the topic away and neither subsequently revisit it.

**Example 27. GP seems to align with or condone caffeine use**

GP: yep I got addicted to diet coke when I was a junior doctor in um + in England because the coffee you couldn't drink it was just disgusting //( )\ coffee=
PT: /right\\
GP: =and + I didn't really want all the sugar but you'd be working horrendous hours in the really hot hospitals //and your\ =
PT: /yep\\
GP: = walking walking (around) //these coke machines everywhere\
PT: /yeah yeah\\
GP: so I've kind of eased back on it a bit and now I'm just a pure caffeine addict //drinking coffee\
PT: /((laughs))\\ I'm lucky I don't like the taste of coffee
GP: oh well you see I would say you were unlucky
PT: unlucky //right\ well I don't know if it's worth developing the taste
GP: /yeah\\
GP: ((drawls)) *oh*
PT: + I actually just drink hot water
GP: do you
PT: yeah + I like it
GP: you know the ((NAME OF HOSPITAL)) in ((NAME OF STREET))

Comment: This discussion seems at cross purposes: GP discussed own caffeine intake despite fact that the patient drinks water. In this interaction the roles are reversed: patient is hearing as the GP tells about own substance use.

**Example 28. Patient explains why current smoking is not really smoking**

PT: oh + I did smoke
GP: yeah
PT: I gave up for about five years
GP: right
PT: um + I do have a cigarette <u>every</u> now and again when I'm in //the pub\=
GP: /okay\\
PT: =but I've kind of done that for ages //it's\ not a new thing=
GP: /yep\\
GP: =so it's not a new thing yeah=
PT: =yeah //I've I don't\ I w- **yeah I don't buy them I wouldn't say I was=**
GP: /okay\\
PT: **=//a smoker**
Comment: GP then goes back to discussing asthma. No exploration of related AOD behaviours eg alcohol intake, or possibility of occasional cannabis smoking as well as tobacco smoking.

**Example 29. GP tells the patient's wife the acceptable her reasons for anxiolytic and sedative use and endorses a dose increase**

WF: ((inhales)) oh (          ) I'm us- you know those tablets I used to get my nerves and all that?
GP: //yeah?\
WF: /(those ones there)\\
GP: mm
WF: can i use two instead ((pronounced stead)) of one + or no
GP: you ((drawls)) *probably*- you're still not feeling that great? **you get a bit anxious and stressed** at times?
WF: (um) yeah I + I don't sleep //that\ well ((drawls the t)) bu*t*
GP: ((quietly)) /*mm*\\
GP: I think you could go up to one and a half and see how that goes?
WF: (no)
GP: you wouldn't wanna jump straight from one to two might feel a bit weird but **you //cou\ld go up to one and a half it would mean having to cut them** in=
WF: /yeah\\
GP: =half + +
WF: yeah=
GP: =you could try that for a couple of weeks
WF: yeah ((mumbles)) (//oh no I'll try and\ leave it like that see how it- have a go- a few goes at it )

**Example 30. This GP prescribes sleeping pills and struggles to negotiate a weaning off**

GP: I'm very happy for you to have a few (zoplicone) //tablets\ ((inhales)) um to=
PT: /yep\\
GP: =take um ((types)) i guess just use them ((exhales)) you know er-
PT: mm
GP: =sensibly because it is a potential //to\ get addicted these if you were to use=
PT: /mm\\
GP: =them every night so ((inhales)) you know certainly use them every night for the next few nights
PT: mm
GP: but + after that you know just take them when you you really need them and you may find it's just around the times //that\ you've been doing night shifts=

**Example 31. Discussion hints at something more significant not explored**

Comment: Well known patient, but not seen in a while, is on prescriptions for several known medical problems. Patient talks about self esteem, breaks down in tears during consult and is given some more analgesics by GP. No AOD discussion or discussion of risks of taking too many prescription medications.

PT: /yep cos\\ I knew i should be taking pain kill//ers but I you know\ when=
GP: /mm mm\\
PT: =I take so many //drugs\

**Example 32. Third person (a carer of patient) is hampered in speaking freely**

CR: the increase of alcohol and the brandy is=
GP: =yeah=
CR: =a little bit of ( )
GP: yeah
CR: ( a dampener down for her I think)
GP: mm
WF: ((exhales))
GP: ((quietly)) *yeah yeah* ((tut)) alright so there'll be a few things going on so we'll be in touch over the next little while to make sure all these things + happen

Comment: Then the referrals etc are completed and the consult ends. GP does not openly acknowledge or explore the information offered by the carer.

**Example 33. GP asks in closed manner about smoking associates**

GP: and your not **you don't + associate with anyone else who smokes** your not around //anyone that smokes ( )\ so you don't (really)=
PT: /oh no ( )\\
12:00
GP: =((inhales)) just you and ((Patient's HUSBAND)) really you don't have too much
PT: he doesn't have //smokes now\ either
GP: /( )\\
GP: no, no clean (little lot) //you two\

Comment: GP has not taken the opportunity to explore which of the associates are non-smokers and which are smokers. The information that has been gathered is quite ambiguous, but there is no attempt to interrogate further.

# Appendix 2: Screening tools

**Examples of brief AOD Screening Questionnaires**

CAGE a 4-item self-report measure that has also been found to have high diagnostic accuracy for identified alcoholics and is suitable for use in primary care (20). It asks each question with the prefix "have you ever.." and hence is not able to immediately discriminate between problematic past use vs current use or changing patterns of use. CAGE has been adapted to include drugs (CAGE-AID).

MAST. The Michigan Alcoholism Screening Test is designed for self-administration. It comes in long and short forms. The long form has 24 questions, short form has 13 questions (SMAST) and brief form (BMAST) has 10 questions. It is a screening test rather than a diagnostic instrument and can produce false positives for alcoholism.[62] SMAST has been adapted to include drugs (SMAST-AID).

CAST, The Canterbury Alcoholism Screening test was the first screening test to be designed in New Zealand, based on MAST.

TWEAK was a brief alcohol screen designed to identify at-risk drinking in pregnant women [63].

AUDIT is a 10-item questionnaire which covers the domains of alcohol consumption, drinking behaviour, and alcohol-related problems which aims to identify hazardous or harmful drinking before dependency occurs or serious harm occurs. It was designed as a brief alcohol screening device in 1987 and has since gained wide acceptability [64].

CUDIT is a Cannabis Use Disorder Identification Test for self-report screening. It has 10 question items and was designed in New Zealand [65].

CASST, the cannabis abuse screening syndrome test, was modelled on the SMAST. It was designed and piloted in New Zealand. It has not enjoyed wide use as training is required to administer this test [66].

CUPIT, the Cannabis Use Problem Identification Test was developed and validated in New Zealand. It was designed for screening youth and can be administered by any youth worker, teacher etc [67].

MSI-X, the marijuana screening inventory was designed in the USA to assist clinicians identify problematic cannabis use. It has 39 items and requires 10 minutes to complete, so has not been widely used for rapid screening [68].

DUDIT is Drug Use Disorders Identification Test, an 11 item screening test. DUDIT-E allows more comprehensive problem assessment [69].

DAST-28, dAST-20 and DAST-10 ask about drug use in a life-time or over a 12-month period, the draw back is that this does not specify which drug is the currently clinically important problem to target [70]. Adolescent versions exist. These have up to 45 questions so are too long for use in primary care.

SSI-AOD is the Simple Screening Instrument for Alcohol and Other Drug Use. It has 16 items of a yes-no nature [71].

SACS. The Substances and Choices Scale was developed in New Zealand specifically for health professional use both to screen for alcohol and other drug use and to use as an outcome measurement instrument. The main tool consists of 23 questions [72].

CHAT tool. A validated multi-item screening tool developed in New Zealand specifically for use in General Practice. The AOD questions are worded "Do you ever feel the need to cut down on your smoking/drinking/other drug use?" [38].

Further information about screening tests including an inventory of commonly used global tools see …http://etoh.niaaa.nih.gov/AODVol1/titlepage.htm

# References


1. Room, R., et al., *Alcohol and public health.[see comment]*. Lancet, 2005. **365**(9458): p. 519-30.
2. Mokdad, A.H., et al., *Correction: actual causes of death in the United States, 2000.* JAMA, 2005. **293**(3): p. 293-4.
3. Ministry of Health, N.Z., *National Alcohol Strategy 2000-2003*. 2001, Alcohol Advisory Council of New Zealand and the Ministry of Health: Wellington, N.Z.
4. Ministry of Health, N.Z., *National Drug Policy 2006-2011*. 2006, Wellington, N.Z.: Ministry of Health.
5. O'Hagan, J., et al., *Alcohol and drug problems: Handbook for health professionals*. 2nd ed. 1993, Wellington Alcohol Advisory Council of New Zealand.
6. Wilkins, C. and P. Sweetsur, *Trends in population drug use in New Zealand: findings from national household surveying of drug use in 1998, 2001, 2003, and 2006.* NZMJ, 2008. **121**(1274).
7. Wutzke, S.E., et al., *Cost effectiveness of brief interventions for reducing alcohol consumption.* Social Science & Medicine, 2001. **52**(6): p. 863-70.
8. Bertholet, N., et al., *Reduction of alcohol consumption by brief alcohol intervention in primary care: systematic review and meta-analysis.* Archives of Internal Medicine, 2005. **165**(9): p. 986-95.
9. Kaner, E.F.S., et al., *Effectiveness of brief alcohol interventions in primary care populations.[see comment]*. Cochrane Database of Systematic Reviews, 2007(2): p. CD004148.
10. Degenhardt, L., et al., *The management of alcohol, tobacco and illicit drug use problems by general practitioners in Australia.* Drug & Alcohol Review, 2005. **24**(6): p. 499-506.
11. Martin, G. and N.Z. National Advisory Committee on Health and Disability, *Guidelines for recognising, assessing and treating alcohol and cannabis abuse in primary care.* 1999, Wellington [N.Z.] National Health Committee,.
12. McCormick, R., et al., *Alcohol and Primary Health Care: New Zealand findings and implications from the WHO collaborative study*. 2002, The University of Auckland. Auckland, N.Z:.
13. Ministry of Health, N.Z., *The New Zealand Health Strategy*. 2000, Wellington, N.Z.: Ministry of Health.
14. Royal New Zealand College of General Practitioners, *Aiming for Excellence: RNZCGP standard for New Zealand General Practice.* 3rd ed. 2008, Wellington, N.Z: Royal New Zealand College of General Practitioners.
15. McKinlay, E., et al., *"What sort of health promotion are you talking about?": a discourse analysis of the talk of general practitioners.* Social Science & Medicine, 2005. **60**(5): p. 1099-1106.
16. Winnard, D., *Health promotion in PHOs: Towards a mutual understanding of this new resource in the primary care team.* New Zealand Family Physician, 2007. **34**(1).
17. McCormick, K.A., et al., *How primary care providers talk to patients about alcohol: a qualitative study.* Journal of General Internal Medicine, 2006. **21**(9): p. 966-72.

18. Moriarty, H. and S. Wynn-Thomas, *Alcohol and drug teaching – can primary care practitioners do this?* Focus on Health Professional Education, 2001. **3**: p. 59-68.
19. Dew, K., et al., *'Treating' patients differently: A qualitative study of how clinical and social factors shape interactions between doctors and patients.* New Zealand Family Physician, 2008. **35**(6): p. 5.
20. Major, G. and M. Stubbe, *Preventing illness and promoting wellness: Lifestyle talk in GP consultations*, in *NZ Discourse Conference*. 2007, AUT: Auckland.
21. Goffman, E., *Interaction Ritual: Essay on Face-to-Face Behaviour*. 1967, New York: Garden City.
22. Heritage, J. and D. Maynard, *Communication in medical care: interaction between primary care physicians and patients*. 2006, Cambridge: Cambridge University Press.
23. Sheriden, J. and R. Butler, *Prescription Drug misuse. Report for National Drug Project.* 2008.
24. Rapley, T., et al., *Still a difficult business? Negotiating alcohol-related problems in general practice consultations.* Social Science & Medicine, 2006. **63**(9): p. 2418-28.
25. Moriarty, H., *AOD Doctor-patient talk: how conversation analysis helps us understand*, in *Cutting Edge Conference*. 2008: Christchurch.
26. Dowell, A., et al., *Clinicians at work: What can we learn from interactions in the consultation?* New Zealand Family Physician, 2007. **34**(5): p. 345-350.
27. Coughlin, S.S., *Recall bias in epidemiologic studies.[see comment].* Journal of Clinical Epidemiology, 1990. **43**(1): p. 87-91.
28. Stubbe, M., *Negotiating prescribing dilemmas: the use of evidence in antibiotic discussions*, in *Tensions in lay and professional reasoning in professional practice: A discourse perspective AILA 2008* 2008, AILA World Congress: Essen, Germany.
29. Dowell, A., et al., *Talking with the Alien: the computer in the GP consultation (short reprise)*, in *RNZCGP Annual Conference*. 2008: Queenstown.
30. Wellington School of Medicine and Health Science, University of Otago. *ARCH Group: Applied Research on Communication on Health.* 2007 17 September 2007. [cited 13 January 2008.]; Available from: http://www.otago.ac.nz/wsmhs/academic/gp/research/ARCH.html#trackingstudy.
31. O'Hagan, J., et al., *Alcohol and drug problems : handbook for health professionals / John O'Hagan, Geoffrey Robinson, Edwin Whiteside.* 2nd ed. ed. 1993, Wellington [N.Z.] :: Alcohol advisory Council of New Zealand,.
32. Díaz, F., *The social organisation of chemotherapy treatment consultations.* Sociology of Health & Illness, 2000. **22**(3): p. 364-389.
33. Heritage, J. and T. Stivers, *Online commentary in acute medical visits: a method of shaping patient expectations.* Social Science & Medicine, 1999. **49**(11): p. 1501-17.
34. Seale, C., et al., *Antipsychotic medication, sedation and mental clouding: an observational study of psychiatric consultations.* Social Science & Medicine, 2007. **65**(4): p. 698-711.
35. Hutchinson, P., R. Read, and W. Sharrock, *There is no such thing as a social science: in defence of Peter Winch*. 2008, Aldershot: Ashgate.
36. Ministry of Health, *Your Choices...Your Health: Care Plus*. 2008 updated 5 October 2007 [cited 13 January 2008]; Available from:

http://www.moh.govt.nz/moh.nsf/indexmh/yourhealth-keepinghealthy-careplus.

37. Klinkman, M.S., *Competing demands in psychosocial care : A model for the identification and treatment of depressive disorders in primary care.* General Hospital Psychiatry, 1997. **19**(2): p. 98-111.
38. Goodyear-Smith, F., et al., *Lifestyle screening: development of an acceptable multi-item general practice tool.* New Zealand Medical Journal, 2004. **117**(1205): p. 1146-1156.
39. Goodyear-Smith, F., et al., *Case finding of lifestyle and mental health disorders in primary care: validation of the "CHAT" tool.* British Journal of General Practice, 2008. **58**: p. 26-31.
40. Aira, M., et al., *Differences in brief interventions on excessive drinking and smoking by primary care physicians: qualitative study.* Preventive Medicine, 2004. **38**(4): p. 473-8.
41. Major, G., *Lifestyle talk and advice in clinical consultations (2006/2007 summer studentship project).* 2006/2007, Wellington School of Medicine and Health Sciences: Wellington, N.Z. p. 18.
42. Aalto, M., et al., *Primary health care professionals' activity in intervening in patients' alcohol drinking: a patient perspective.* Drug & Alcohol Dependence, 2002. **66**(1): p. 39-43.
43. Spiers, J.A., *The Use of Face Work and Politeness Theory.* Qual Health Res, 1998. **8**(1): p. 25-47.
44. Roberts, C. and S. Sarangi, *Section 2: Mediation, management and social care. Introduction: Negotiating and legitimating roles and identities.*, in *Talk, Work and Institutional Order. Discourse in Medical, Mediation and Management Settings.*, S. Sarangi and C. Roberts, Editors. 1999, Mouton de Gruyter: Berlin, New York. p. 227-236.
45. Dew, K., et al., *The (non)use of prioritisation protocols by surgeons*, in *Sociology of Health and Illness*. 2010.
46. Rhodes, P., et al., *What Does the Use of a Computerized Checklist Mean for Patient-Centered Care? The Example of a Routine Diabetes Review.* Qual Health Res, 2006. **16**(3): p. 353-376.
47. Moriarty, H., D. McLeod, and A. Dowell, *Mystery shopping in health service evaluation.* British Journal of General Practice, 2003. **53**: p. 942-946.
48. Collins, S., et al., *Patient participation in health care consultations: Qualitative perspectives* 1997, Berkshire: Open University Press/McGraw Hill Education.
49. Zandbelt, L.C., et al., *Medical specialists' patient-centered communication and patient-reported outcomes.* Medical Care, 2007. **45**(4): p. 330-9.
50. Buetow, S. and G. Elwyn, *Are patients morally responsible for their errors?* J Med Ethics, 2006. **32**(5): p. 260-262.
51. Prochaska, J.O. and C.C. Di Clemente, *Transtheoretical therapy: Toward a more integrative model of change.* Psychotherapy: Theory, Research and Practice, 1982. **19**(3): p. 276-288.
52. Aira, M., et al., *Factors influencing inquiry about patients' alcohol consumption by primary health care physicians: qualitative semi-structured interview study.[see comment].* Family Practice, 2003. **20**(3): p. 270-5.
53. Lindfors, P. and L. Raevaara, *Discussing patients: drinking and eating habits in medical and homeopathic consultations.* Communication & Medicine, 2005. **2**(2): p. 137-149.

54. Patterson, R. *HDC Office of the Health and Disability Commissioner website.* [cited 2008 27th June]; Available from: www.hdc.org.nz
55. Fullard, E., G. Fowler, and M. Gray, *Promoting prevention in primary care: controlled trial of low technology, low cost approach.* Br Med J (Clin Res Ed), 1987. **294**(6579): p. 1080-1082.
56. Sanders, D., et al., *Randomized controlled trial of anti-smoking advice by nurses in general practice.* J R Coll Gen Pract, 1989. **39**(324): p. 273-276.
57. Stott, N. and R. Davis, *The exceptional potential in each primary care consultation.* J R Coll Gen Pract, 1979. **29**(201): p. 201-205.
58. Roberts, C. and S. Sarangi, *Theme-oriented discourse analysis of medical encounters.* Medical Education, 2005. **39**(6): p. 632-40.
59. Linell, P. and M. Bredmar, *Reconstructing Topical Sensitivity: Aspects of Facework in Talks Between Midwives and Expectant Mothers.* Research on Language and Social Interaction, 1996. **29**(4): p. 347-379.
60. Dew, K., et al., *'Treating' patients differently: a qualitative study of how clinical and social factors shape interactions between doctors and patients.* New Zealand Family Physician, 2008. **35**(6).
61. Garfinkel, H., *Chapter 6: Good organizational reasons for "bad" clinical records.*, in *Studies in Ethnomethodology*. 1967, Prentice-Hall: Englewood Cliffs, N.J.
62. Selzer, M., A. Vinokur, and L. Van Rooijen, *A Self-administered Short Michigan Alcoholism Screening Test. (SMAST).* Journal of Studies on Alcohol, 1975. **36**(1): p. 117-126.
63. Russell, M., *New assessment tools for risk drinking during pregnancy.* Alcohol Health & Research World, 1994. **18**(1): p. 55.
64. Aasland OG, B.T., de la Fuente JR, Grant M, Saunders JB, et al, , *Development of the Alcohol Use Disorders Identification Test (AUDIT): WHO Collaborative Project on Early Detection of Persons with Harmful Alcohol Consumption--II. [Comparative Study].* Addiction, 1993. **88**(6): p. 791-804.
65. Adamson, S.J. and J.D. Sellman, *A prototype screening instrument for cannabis use disorder: the Cannabis Use Disorders Identification Test (CUDIT) in an alcohol-dependent clinical sample.* Drug & Alcohol Review, 2003. **22**(3): p. 309.
66. Hannifin, J., *The cannabis abuse syndrome screening test: a brief report*. 1990, Drugs Advisory Committee: Wellington.
67. Bashford, J., *CUPIT: The Cannabis Use Problem Identification Test.* 2007, Thesis, University of Otago
68. Alexander, D., *A marijuana screening inventory (experimental version): description and preliminary psychometric properties.* American Journal of Drug and Alcohol Abuse, 2003. **29**(3): p. 619(28).
69. Berman, A.H., et al., *Evaluation of the Drug Use Disorders Identification Test (DUDIT) in Criminal Justice and Detoxification Settings and in a Swedish Population Sample.* European Addiction Research, 2005. **11**(1): p. 22-31.
70. Gavin, D.R., H.E. Ross, and H.A. Skinner, *Diagnostic Validity of the Drug Abuse Screening Test in the Assessment of DSM-III Drug Disorders.* Addiction, 1989. **84**(3): p. 301-307.
71. Winters, K. and J. Zenilman, *Simple screening instruments for outreach for alcohol and other drug abuse and infectious diseases*. Treatment Improvement protocol (TIP) Series, ed. M. Rockville. 1994: United States Department of Health and Human Services.

72. Christie, G., et al., *The Substances and Choices Scale (SACS) - the development and testing of a new alcohol and other drug screening and outcome measurement instrument for young people.* Addiction, 2007. **102**(9): p. 1390-1398.