



**Riley, R., Weiss, M., Platt, J., Taylor, G., Horrocks, S. and Taylor, A. (2012) A comparison of GP, pharmacist and nurse prescriber responses to patients' emotional cues and concerns in primary care consultations. Patient Education and Counseling. ISSN 0738-3991 (In Press)**

**Link to official URL (if available):**  
<http://dx.doi.org/10.1016/j.pec.2012.11.009>

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Title Page

A Comparison of GP, Pharmacist and Nurse Prescriber Responses to Patients'  
Emotional Cues and Concerns in Primary Care Consultations

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Abstract

Objective: Recognising patients' cues and concerns is an important part of patient centred care. With nurses and pharmacists now able to prescribe in the UK, this study compared the frequency, nature, and professionals' responses to patient cues and concerns in consultations with GPs, nurse prescribers and pharmacist prescribers.

Methods: Audio-recording and analysis of primary care consultations in England between patients and nurse prescribers, pharmacist prescribers and GPs. Recordings were coded for the number of cues and concerns raised, cue or concern type and whether responded to positively or missed.

Results: A total of 528 consultations were audio-recorded with 51 professionals: 20 GPs, 19 nurse prescribers and 12 pharmacist prescribers. Overall there were 3.5 cues or concerns per consultation, with no difference between prescriber groups. Pharmacist prescribers responded positively to 81% of patient's cues and concerns with nurse prescribers responding positively to 72% and GPs 53% (PhP v NP:  $U=7453$ ,  $z=-2.1$ ,  $p=0.04$ ; PhP v GP:  $U=5463$ ,  $z=-5.9$ ,  $p<0.0001$ ; NP v GP:  $U=12070$ ,  $z=-4.9$ ,  $p<0.0001$ ).

Conclusion: This evidence suggests that pharmacists and nurses are responding supportively to patients' cues and concerns.

Practice Implications: The findings support the importance of patient-centredness in training new prescribers **and their potential in providing public health roles.**

Key words:

Provider-patient communication

Concern

Cue

Primary care

Nurse Practitioners

Pharmacist

General Practitioner

## 1.0 Introduction

Since 2004, pharmacists and nurses (and, more recently, other allied health professionals) have been able to prescribe medicines independently after completion of an approved training course. The policy rationale behind the extension of prescribing to 'non-medical' prescribers relates to increasing access and choice to patients, maximising the expertise and skills of highly trained health care professionals and as a way to introduce flexible team working [1].

One component of the independent prescriber course [2, 3] involves consultation skills training which develop the practitioner's abilities to actively involve patients in treatment decision making whilst also acknowledging the wider impact of illness or symptoms on an individual's life. In addition, professionals are taught to consider and respond supportively to any concerns, worries and needs that patients may have in relation to their condition and/or treatment. In particular this involves exploring patient worries, understanding the psychosocial impact of the illness on their everyday life and providing empathy and support in response [4]. Additionally, evidence suggests that anxiety and depressive states are common in people with a physical illness as well as individuals who have pre-existing or current psychosocial complaints [5]. As a result, acknowledging and attending to patients' emotional cues and concerns is paramount in the provision of a more holistic model of health which is underpinned by evidence that supports the relational, psychological/emotional and clinical benefits of patient-centred and empathic practitioners [6-9]. Eliciting, recognising and responding to patients' cues and concerns is one of the three key elements of patient centred care, the others are understanding the patient's unique psychosocial perspective and reaching a shared understanding of treatment with the patient [10]. Despite the onus placed on health care professionals to elicit and respond to patients' emotional cues and concerns in medical

consultations, a literature review of doctors' responses to patients' cues and concerns concluded that doctors did not consistently acknowledge or respond supportively to patient's psychosocial concerns [11].

Research with nurses suggests that they may offer more holistic, educative, informative, accessible, and approachable consultations [12, 13, 14]. However, a systematic review of studies investigating empathy in nurses revealed inconsistencies in the empathy levels and measurements employed across the studies [15]. A study by Reynolds and Scott [16] found that nurses did not display much empathy in their relationship with patients while McCabe [17] found that nurses communicate well with their patients when adopting a patient-centred approach but that the relationship was compromised when nurses switched to being more task focused. Recent research involving nurses have focused on specific clinical areas such as fibromyalgia and cancer care [18-20]. Patients of nurses who had demonstrated a higher level of response to patient cues were more satisfied with the communication [18]. In another study an increased number of cues was associated with a lack of empathic responding by nurses whereas an increased level of concerns was associated with higher empathic responding when the patient had a higher level of negative affect [19]. **The studies show the effects of nurses' responses to patients' cues and concerns.**

Given the emphasis on the laboratory sciences and a biomedical model of disease in the training of pharmacists, there is a possibility that pharmacists may be insufficiently equipped to respond to patients' psychosocial concerns [21]. Indeed, a recent qualitative study of pharmacist-patient communication using the Calgary-Cambridge guide as an analytic framework, found that pharmacists performed less well at skills related to encouraging patient participation in the consultation, including picking up patient cues [22]. To date, few studies

have examined nurse and pharmacist prescriber responses to patient's cues and concerns in depth.

As part of the independent prescriber training, nurses and pharmacists work in collaboration with a designated medical practitioner. Subsequently, the qualified nurse or pharmacist prescriber will often take over a role previously undertaken by a GP in that practice, such as managing a long term condition (e.g. hypertension clinics), running an open access minor ailment clinic at the surgery or running general open access appointments. For these reasons, the structure and format of a nurse or pharmacist prescribers' consultations is likely to be very similar to those of GPs. With the diversity of prescribers now available, our study sought to answer three research questions: Will patients bring a comparable number of cues and concerns to nurse and pharmacist prescribers as they would to a GP? Will the nature (e.g. type) of cue or concern be similar? Finally, given the diversity of undergraduate professional training in prescribers, will nurse prescribers (NPs) and pharmacist prescribers (PhPs) respond differently to patients' cues and concerns than GPs?

## **2.0 Methods**

### **2.1 Study sites and participants**

Ethical approval was obtained from Wiltshire Research Ethics Committee and 35 local Research and Development offices in Southern England, including Greater London. The health professionals were recruited through a rolling recruitment via third party recruiters (i.e. non-medical prescribing leads) and the primary care research network (PCRN) who posted adverts and targeted specific research-active practices. Study researchers visited interested practices to explain the study and obtain consent from health professionals. Participants were informed that the focus of the study was concerned with the consultation styles of different prescribing groups in consultations in which a decision or discussion about a medicine would take place.

Reception staff gave patients a study information sheet and asked if they would be happy to see a researcher who would explain the study in more detail. Researchers were then able to obtain patients' informed consent in the waiting room prior to their consultation with their prescriber. Recruited health professionals were provided with an audio recorder in their consultation room and were asked to record consultations with patients who had agreed to take part. Inclusion criteria required patients to be over age 16, be able to communicate in English and give informed consent.

## 2.2 Data Collection

Two researchers (RR, JP) listened to a share of the audio recorded consultations to identify cues and concerns within each consultation and categorised each into a specific cue / concern type. At the beginning of the study (2009) the focus was on clues, as defined by Levinson et al [8]. These are 'a direct or indirect comment that provides information on any aspect of a patient's life circumstances or feelings' [8]. However as the study progressed the definition of cues and concerns as used in VR-CoDES seemed to more accurately describe what we were hearing in the consultations [24,25] and so we adopted the VR-CoDES definitions for the remainder of the study [Box 1]. Having identified these cues and concerns, these were entered verbatim onto a coding sheet and the cue / concern type determined based upon the categories used by Levinson et al [8]. The cue / concern categories used were **feelings concerning issues that were** biomedical, medication-related, impact of illness on life, life changes, lifestyle, low mood or stress issues.

The coders also identified and interpreted prescriber responses to cues and concerns. Positive responses were defined as those responses which encouraged the patient to express their personal, psychological or family-related concerns [8]. Drawing upon previous research [8, 23] a positive response was judged on the content of the response but also on additional



information related to prosodic clues such as intonation or pausing which provides further information about the nature of the prescriber's response. Categories of positive responses included acknowledgment, which refers to cues / concerns that were acknowledged but not pursued [23]. For a response to be classed as a pursuit, it required the professional to follow up by exploring/clarifying feelings about a patient's cues/concerns or by encouraging the patient to talk more about their thoughts, feelings or beliefs about the cue/concern. A response was coded as missed when a prescriber did not support or encourage the patient to discuss emotional concerns, or they avoided the subject [8] (Box 1). Included as missed responses were redirections, defined as when the professional orientates towards a biomedical agenda without acknowledgement of the patient's psychosocial cue or concern. Inadequate acknowledgements were those when the patient's cue or concern was given minimal recognition, **a brief conversational rejoinder that did not encourage any further exploration of the cue or concern (e.g. 'uh-huh')**, and an interruption refers to instances when the patient's flow of talk was interrupted by a response which was unrelated to the patient's cue or concern.

### 2.3 Data Analysis

Data recorded on the coding sheet was entered into SPSS. A descriptive analysis was then undertaken to identify the types of cues raised by the patient and the nature of prescriber responses (type of positive or missed). ANOVA, Chi-Square, Kruskal- Wallis and Mann-Whitney tests were used to make a statistical comparison of responses across the three prescribing groups. The effect of individual prescriber and prescriber type on dependent variables were analysed using linear mixed-effects modelling.

### 2.4 Inter coder Reliability

The two coders met regularly with the principal investigator to discuss differences, ambiguities and any difficulties in the coding process. To assess intercoder reliability, coder 2

(JP) selected a random sample of 10 consultations originally coded by coder 1 (RR). Using a standardised positive agreement formula [26], the mean positive agreement between coder 1 and 2 was calculated at 65% with a median of 70%.

### **3.0 Results**

#### **3.1 Characteristics of study population**

Between October 2009 and September 2011, a total of 528 consultations were audio-recorded: 208 with GPs, 208 with nurses and 112 with pharmacists. These were from 51 professionals comprising: 20 GPs (8 female, 12 male) with a mean age of 49 (SD=5.4) years; 19 nurses (all female) with a mean age of 46 (SD=6.3) years; and 12 pharmacist (8 female, 4 male) with a mean age of 42 (SD=6.4) years. Prescribers were recruited from 36 practices across 14 PCTs in southern England. Of the 36 practices, 19% (7/36) were situated in large urban populations, 25% (9/36) were situated in small-medium urban populations, 19% (7/36) in suburban locations, 22% (8/36) in town and fringe, 8% (3/36) in semi-rural areas while 6% (2/36) of practices were situated in rural locations. Consultations included patients presenting with acute conditions (e.g. chest, throat, urinary infections, skin conditions etc.) and those with new or managed chronic conditions (e.g. hypertension, diabetes, asthma, depression and cardiovascular conditions).

Of the health care professionals, the 19 nurses completed their independent prescriber training at 9 different educational institutions while the 12 pharmacists undertook training at 4 institutions. The mean consultation length was 10.1 (SD=4.6) minutes for GPs, 11.2 (SD=6.5) minutes for nurse prescribers and 18.2 (SD=9.7) for pharmacist prescribers. Pharmacist prescriber consultations were significantly longer than GPs or NPs [ $F(2,525)=56.7$ ;  $p<0.0001$ ].

#### **3.2 Frequency and Type of Cue / Concern**

Of the 528 consultations, there were 1850 cues or concerns expressed with an average of 3.5 (SD=2.7) cues / concerns per consultation. A cue or concern occurred in 89% of consultations across the professional groups. There were no significant differences in the number of cues and concerns presented by patients across the groups (Kruskal Wallis  $\chi^2(2,528)=3.1, p=0.21$ ). For all three groups the minimum and maximum number of cues and concerns ranged from 0 to 10. **With 7-12 consultations recorded per prescriber, the individual prescriber was a better predictor of total number of cues and concerns, rather than type of prescriber (GP, NP or PhP). The individual prescriber explained 15.8% of the variance in total number of cues and concerns and persisted even when controlling for prescriber type, age and sex (Estimate=3.135, t=2.446, p=0.018) (Table 1).**

The type of cues and concerns raised by patients, as a percentage of the total cues and concerns, is shown in Figure 1. Cues and concerns relating to biomedical concerns were the most frequent cue / concern type across the three groups, occurring more frequently in both GP (59%, 450/760) and nurse (58%, 416/719) consultations compared with pharmacists' consultations (46%, 171/371). The second most frequent cue / concern type uttered by patients was related to medication. The frequency was higher in pharmacist (23%, 86/371) consultations compared with GP (14%, 103/760) and nurse (13%, 92/719) consultations. These related to concerns about side effects, reluctance in taking medicines and concerns about effectiveness of treatment. The third most common type related to how a patient's medical condition or symptoms impacted on patients in their day-to-day life. The frequency of this cue / concern type was similar in GP (9%, 71/760) and nurse (8%, 56/719) consultations compared with pharmacist's (6%, 22/371). Other content related to cues / concerns about lifestyle were voiced more frequently by patients of pharmacists (16%, 61/371) compared to patients of nurses (6%, 42/719) or GPs (4%, 27/760) while content relating to life changes, ageing and

bereavement occurred more frequently in nurse consultations (10%, 74/719) compared with both GP (5%, 37/760) and pharmacist consultations (5%, 17/371). Finally, content of cues / concerns related to stress and depression or low mood was higher in those consultations with GPs (9%, 72/760) compared with patients of nurses (5%, 39/719) and pharmacists (4%, 14/371). Examples of the types of cues / concerns raised are shown in Table 2.

### 3.3 Types of Prescriber Responses

#### 3.3.1 Positive Responses

Table 3 shows the proportion of positive and missed responses across the three groups. Of the total responses, 81% (299/371) of pharmacist's responses were coded as positive compared with 72% (517/719) of nurse prescriber responses and 52% (398/760) of GP responses. Positive responses were significantly more likely in pharmacist and nurse prescriber consultations compared with GPs [ $\chi^2= 43.9$   $p<0.0005$ ,  $df=2$ , PhP v NP:  $U=7453$ ,  $z=-2.1$ ,  $p=0.04$ ; PhP v GP:  $U=5463$ ,  $z=-5.9$ ,  $p<0.0001$ ; NP v GP:  $U=12070$ ,  $z=-4.9$ ,  $p<0.0001$ ].

Of the prescribers' positive responses (see Figure 2), acknowledgement was the most frequent where 44% (165/371) of pharmacist responses were coded as acknowledgement. This was slightly lower in the responses of nurse prescribers (38% - 271/719) and GPs (27% - 207/760). The second most common type of response was pursuit of patients' emotional cues and concerns which occurred in approximately one fifth of prescribers' positive responses. Examples of positive responses are shown in Table 4.

#### 3.3.2 Missed Responses

Pharmacists missed 19% (72/371) of patients' cues and concerns, which was significantly less than the 28% (202/719) of missed responses in nurses and 48% (362/760) in GPs ( $\chi^2= 45.01$   $p<0.0005$ ,  $df=2$ ) (Table 3). Further analysis using a Mann Whitney U test to ascertain the direction of results indicated that there were significant differences between the

proportion of GPs' missed responses when compared to the responses of pharmacists and nurses ( $p < 0.001$ ,  $Z = -5.970$ ,  $U = 5462.5$ ). However, a comparison of nurse and pharmacist missed responses suggests that there are no significant differences between these two groups ( $p = 0.06$ ,  $Z = -1.841$ ,  $U = 7590.5$ ).

The most frequent type of missed response (Figure 2) across the prescriber groups was inadequate acknowledgment which was higher in GP responses compared with nurse and pharmacist responses. GPs inadequately acknowledged 26% (196/760) of patients' cues and concerns, compared with 14% (98/719) of nurse and 10% (36/371) of pharmacist responses. Redirection was the second most frequent type of missed response which occurred in 15% (117/760) of GP responses, 11% (80/719) of nurse and 9% (32/371) of pharmacist prescriber responses. Six per cent (49/760) of GP responses were coded as 'interruptions', where the prescriber actually interrupted the patient's flow of talk. These occurred more frequently in GP consultations compared with 3% (24/719) of nurse responses and 1% (4/371) of pharmacist responses. Examples of missed responses are shown in Table 4.

### 3.3.3 Responses by prescriber gender

The analysis also examined the impact of prescriber gender on the proportion of positive responses to patient cues and concerns. Since nurse prescribers were all female and male pharmacists totalled four, a meaningful comparison could only be made in respect of gender of GPs since 12 GPs were male and 8 were female. A Mann-Whitney U Test revealed significant differences between the proportion of positive responses given by female GPs (53%) compared with male GPs (47%) ( $U = 3132.5$ ,  $z = -2.915$ ,  $p = 0.004$ ).

## 4.0 Discussion and Conclusion

### 4.1 Discussion

Patients uttered an average of 3.5 cues or concerns per consultation, with at least one in up to 90% of consultations. This contrasts with previous findings which found that patients uttered comparatively fewer cues and concerns in fewer consultations [8, 23] **although a literature review on cues and concerns found that, in the studies reviewed, there were between 1 and 7 cues and concerns per consultation [11]**. In Levinson's study, for example, patients uttered an average of 2.6 cues and concerns per consultation with primary care doctors in 52% of consultations [8]. In this study, patients' cues and concerns related to fears, worries, and needs concerning, for example, their biomedical condition, symptoms, treatment or their impact on an individual's day-to-day life. The most frequent cue type related to biomedical concerns which accounted for over 50% of the total cue types which was higher than the 20% of biomedical cue types identified in Levinson's study [8]. However, our results do correspond with other findings which found that illness-related cues and concerns occurred more frequently than psychosocial ones relating to stress, bereavement, and diagnosed conditions such as depression or anxiety, for example [11].

Given the higher proportion of medication and lifestyle related cues and concerns in pharmacist prescriber consultations, it is reassuring to observe these are being acknowledged and addressed by pharmacists. This suggests that pharmacists may be responding supportively to patients' life-world cues and concerns related to medication side effects, or treatment efficacy. Given the importance of medicines in the treatment of chronic conditions such as diabetes, hypertension, COPD or asthma, it is pertinent to consider the wider meanings and implications of medicine taking from the patient perspective, as highlighted by previous authors [27]. It should be acknowledged that the higher proportion of medication and lifestyle cue types in pharmacist prescriber consultations could be attributed to the higher number of

medication review clinics run by pharmacists where a patient's medicines and lifestyle are a focal point of the consultation.

The study findings indicate that pharmacists and nurses responded more positively to patient's cues and concerns compared to GPs. The findings contrast with those of Greenhill et al who found that pharmacists were less likely to demonstrate skills which encouraged patient participation in the consultation [22]. In addition, male GPs were significantly more likely to miss patients' cues and concerns compared with female GPs, a finding supported by previous research which suggests that female doctors are more empathic or patient centred [28, 29].

Although differences between the groups were found, this study has limitations. It should be noted that potentially useful data gained from visual cues were not available as consultations were audio recorded. In addition, due to the large number of consultations, only specific verbatim responses were written down although it is recognised that full transcripts would have provided more detail. A precise response rate was also difficult to determine as the research study used a gatekeeper to contact practices. It was advertised to 179 GP practices in the southwest and followed up through the local Primary Care Research Network. When sufficient pharmacist prescribers were unable to be recruited from the southwest, the Greater London Primary Care Network (advertising to 1600 GP practices) was used to recruit additional pharmacist prescribers. Therefore while a denominator in the response rate is unknown, it is highly likely that respondent bias existed. We had a self-selected sample which was likely to include those interested in communication skills and those, potentially, who considered themselves good communicators. Though self-selection bias would have applied to all participants in this study, it is particularly pertinent to the small sample of 12 pharmacists. These data are unlikely to be generalizable to the wider population of prescribers.

This research used coding schemes developed by previous researchers [8,23] with an acknowledged normative focus on coding communication sequences using value-laden terminology such as ‘inadequate acknowledgement’. At the time of funding (2008) other more neutral coding systems (e.g. VR-CoDES) were not readily accessible through international publications. **While recognising the importance of distinguishing between cues and concerns as noted by other researchers [25], this study began at a time when it was common to ‘define any verbalisation of emotion, whether hinted or fully expressed, as a cue and disregard the label concern’ [11: pp.439].** In addition our focus was on the description of the range of cues and concerns, grouped together, to facilitate comparisons across prescriber groups. Finally, we also included a separate sub-study involving a more in-depth analysis of cues and concerns using conversation analysis to explore the details and structures of the interactions **(not reported here)**. However, the coding schemes selected also enabled comparisons with previous research and did not require extensive training to apply to our dataset. **However it is acknowledged that the reliability analysis on the data still left considerable room for error.** It is acknowledged, in retrospect, that other coding schemes may have been more appropriate to use in this context.

Despite responding comparatively less positively than pharmacists and nurses, GPs’ response rate of 53% in this study was substantially higher than the response rate found in Levinson’s study in which primary care doctors responded positively in 21% of cases. The comparative increase in the responsiveness of GPs a decade on could be attributable to a number of factors and could include the shift to a more patient centred approach in consultation skills training [4]. However, differences between the two studies could also be attributable to variations in the method employed in the identification of cues and concerns and types of responses. It is worth highlighting that GPs’ response rates in this study were



similar to doctors' positive response rates identified in other studies across a range of settings including primary care, psychiatry and oncology [11].

In addition, the observed differences in positive responses between pharmacists when compared to GPs might be explained by the recent focus of communication skills training on the independent prescriber courses. Communication skills training has been demonstrated to show an improvement in healthcare professionals' responsiveness to patient's cues and concerns [11] and commensurate with the extension of prescribing in 2004 [1], pharmacist prescribers, in particular, would have attended a prescriber course relatively recently, and are also new to working as independent prescribers in primary care. It could be argued that pharmacists who have opted to undertake independent prescriber training are motivated to work with patients and are a self-selected sample of 'pioneering' pharmacists, different from the majority of pharmacists that work in a community pharmacy.

The varying positive response rates could also be accounted for by differences in consultation length between GPs and pharmacists. On average, pharmacist consultations were approximately 8 minutes longer compared with GPs and 7 minutes longer than nurses. However, GP consultations were just over 1 minute shorter, on average, than nurse prescriber consultations, in which case, the differences in positive responses could not be reliably explained by differences in consultation length between these two professional groups.

#### 4.2 Conclusion

Despite concerns that pharmacists' laboratory science background may influence their approach to responding more holistically to a patient's psychosocial world, preliminary evidence from this study suggests that pharmacists and nurses are responding positively to patients' cues and concerns compared to GPs. The responses by nurses and pharmacists, particularly in the way they acknowledge and pursue patients' psychosocial cues and concerns

suggest that pharmacists and nurses are engaged with their patients on more than just a biomedical level.

#### 4.3 Practice Implications

These preliminary findings suggest that the new prescribers appear to be communicating within a patient-centred model of care. It suggests that the inclusion of communication skills modules in the training of healthcare professionals such as pharmacists, with particular emphasis on patient-centred and empathic communication cannot be understated. Such training and practice incorporate and promote key facets of a patient-centred approach and which include eliciting and understanding the patient's psychosocial world, their ideas, concerns, and expectations. **With the increasing role of nurses and pharmacists in public health, the evidence that they can respond effectively to patients' emotional needs is encouraging. It suggests that nurses and pharmacists might be the most appropriate health care professionals to undertake these roles.**

#### Acknowledgments

This study was funded by the Leverhulme Trust. The authors gratefully acknowledge the kind assistance of the patients and professionals that participated in this study. I confirm all patient/personal identifiers have been removed or disguised so the patient/person(s) described are not identifiable and cannot be identified through the details of the story. The views expressed in this paper are those of the authors and not necessarily those of the Leverhulme Trust.

#### Conflicts of Interest

None.

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Box 1: Definitions of Cues and Concerns used in the Study

**Cue** - 'Any expression introducing new contents by variations in voice quality, content, or speech and indicating that in the consultation there is still something not explored or not dealt with enough. Refers to expectations, ideas, feelings, symptoms, somatic or emotional worries experienced by the patients' [25]

**Concern** - 'A clear/direct and unambiguous expression of unpleasant current or recent emotion' [25]

**Positive response** – when a cue is picked up, acknowledged, clarified, pursued or when empathy, reassurance or support is offered [7, 18]

**Missed response** – an inadequate response which includes, interruption, avoiding, discouraging or privileging of a biomedical agenda without acknowledgement of a psychosocial cue or concern [7, 18]

Fixed effect	Model 1	Model 2	Model 3	Model 4
Intercept	3.517 (0.166)***	3.520 (0.357)***	3.119 (0.492)***	3.135 (1.282)*
Prtype= GP		0.189 (0.444)	0.386 (0.476)	0.389 (0.520)
Prtype= NP		-0.207 (0.449)	-0.345 (0.466)	-0.346 (0.485)
Prtype=PhP		0 (0) <sup>a</sup>	0 (0) <sup>a</sup>	0 (0) <sup>a</sup>
Sex			0.539 (0.453)	0.542 (0.457)
Prescriber age				-0.0004 (0.028)
<b>Random effect</b>				
Intercept	0.802 (0.295)**	0.829 (0.307)**	0.842 (0.323)**	0.875 (0.323)**
Residuals	6.337 (0.412)***	6.337 (0.412)***	6.326 (0.411)***	6.325 (0.411)***
<b>Model fit statistics</b>				
Deviance	2516.72	2515.71	2514.04	2519.36
AIC	2520.72	2519.71	2518.04	2523.36
BIC	2529.25	2528.24	2526.56	2531.88

\*P<0.05, \*\*P<0.01, \*\*\*P<0.001, a: parameter fixed by model

**Table 1: Multi-level model of individual prescriber, prescriber type, prescriber gender and prescriber age effects**



Type of Cue or Concern	Example
<b>Biomedical</b>	<p>GP Pt 702: <i>'Tuesday night, during the night, it [breathlessness] frightened the life out of me. I couldn't control my breathing...'</i></p> <p>NP Pt 685: <i>'This is just really, really insane itching, and you can see how inflamed my eyes are.'</i></p>
<b>Medication Related</b>	<p>GP Pt 806: <i>'Oh yeah, well, it's difficult, difficult to know really. I know the previous statin certainly gave me a lot of congestion on the chest, uhm, and I have a bit of congestion at the moment, whether that's the statin or not. The only way of finding that out is not to take it.'</i></p> <p>PhP Pt 848: <i>'I've got lymphedema and believe me, every day pains me but I try not to use them as an escape route. You know, I'll take some today but I may not take any tomorrow.'</i></p>
<b>Impact on Life</b>	<p>PhP Pt 595: <i>'I can't walk as far as I'd like to walk. Since the fall, I can't even kneel on them.'</i></p> <p>NP Pt 729: <i>'I'll lie awake at night scratching my arms, I can't sleep 'cause I'm scratching and scratching so much.'</i></p> <p>GP Pt 171: <i>'Well sometimes I see every hour and I honestly think maybe I don't sleep at all until the last hour of the night.'</i></p>
<b>Stress or Depression</b>	<p>GP Pt 656: <i>'at the moment I'm living on my nerves.'</i></p> <p>NP Pt 198: <i>'It's much to do with working too hard I should think and working my way through the flu...and not really, I wonder if I should have just signed off.'</i></p>

**Table 2: Examples of Types of Cues and Concerns Raised**

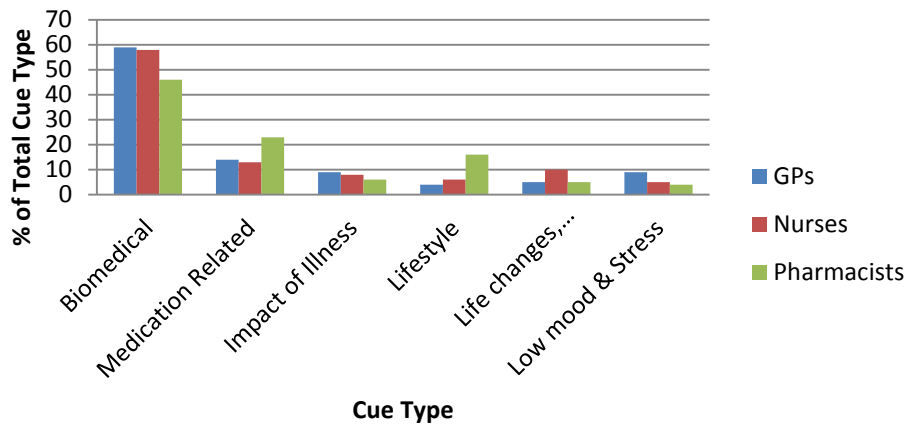
Professional Group	Proportion of Positive Responses M% (N)	Confidence Intervals		Proportion of Missed Responses M% (N)	Confidence Intervals	
		Lower	Higher		Lower	Higher
<b>GPs</b>	52 % (398/760)	47.9	58.6	48 % (362/760)	41.3	52.0
<b>Nurses</b>	72 % (517/719)	67.1	76.8	27 % (202/719)	22.1	31.5
<b>Pharmacists</b>	81 % (299/371)	74.9	85.9	19 % (72/371)	14.0	25.0

**Table 3** Proportion of total positive and missed responses by professional group

Type of Prescriber Response		Example
<b>Positive</b>	Acknowledgement	<i>NP Pt 685: 'This is just like really, really insane...itching, and you can see how inflamed my eyes are.' NP Response: 'Yes, I can, I can honestly.'</i>
	Pursuit	<i>Pt554: 'I'm feeling really lousy. I was nearly asleep out there in the waiting room NP: Oh, and how long has this been going on for?'</i>
<b>Missed</b>	Inadequate Acknowledgement	<i>Pt 236: 'Well I've got a er, of course with being so poorly and the weather as well I had to cancel' (coughs) NP: 'Right'</i>
	Redirection	<i>GP Pt 114: 'The pain shoots right down my finger' GP Response: 'Can you make a fist for me?'</i>  <i>NP Pt 439: 'It's a very sharp stabbing pain [in the belly]' NP Response: 'Okay, do you drink much alcohol?'</i>

**Table 4: Examples of Types of Prescriber Responses to Patients' Cues and Concerns**

**Fig. 1. Content of Patients' Cues and Concerns as a Percentage of Total Cue Content, by Professional Group.**



**Fig. 2. Type of Positive and Missed Response as a Percentage of the Total Response Type, by Prescribing Group**

