

Original Article

Delivering the faecal occult blood test: More instructions than shared decisions. A qualitative study among French GPs

Isabelle Aubin-Auger¹, Alain Mercier², Katell Mignotte^{1,6}, Jean-Pierre Lebeau³, Michel Bismuth¹, Lieve Peremans^{4,5} & Paul Van Roven⁴

¹Université Paris Diderot, Sorbonne Paris Cité, Département de Médecine Générale, Paris, France, ²Département de Médecine Générale, Rouen University, France, ³Département de Médecine Générale, Tours University, France, ⁴Department of Primary and Interdisciplinary Care, Faculty of Medicine and Health Sciences, University of Antwerp, Antwerp, Belgium, 5Department of Public Health Vrije Universiteit Brussel, Brussels, Belgium, and ⁶Laboratoire d'Ethique Médicale et Médecine légale, EA 4569, Paris René Descartes University, France

KEY MESSAGE:

• GPs' communication skills have to be developed in order to provide the correct type and amount of information for each patient. Incorporation of patients' perspectives could enable a shared decision to be reached.

ABSTRACT

Background: Colorectal cancer (CRC) is the third most common cancer worldwide. In France, mass screening has been established with FOBT since 2008. The participation rate remains too low. Previous studies were conducted to explore doctors' and patients' perspectives.

Objective: This study was conducted to explore GPs' performance during consultations in which patients ask for FOBT, focusing on two different aspects: the core content of the consultation and the communication style used between GPs and patients.

Methods: Nine purposively sampled GPs were asked to audiotape specific consultations. Content analysis was performed using Nvivo 9 software. Communication between doctors and patients was explored using RIAS coding.

Results: GPs audio taped specific parts of 35 different consultations when they discussed and delivered the FOBT. The core content included primarily biomedical statements with a large portion dedicated to technical aspects. The communication style was not patient-centred.

Conclusion: While the participation rate of mass screening in France is still low, the analysis of recorded consultations by French GPs confirms that the way of delivering FOBT can be improved.

Keywords: Colorectal cancer, mass screening, communication, shared decision making

INTRODUCTION

Colorectal cancer (CRC) is the third most common cancer worldwide, with a high mortality rate, which has led to various screening strategies (1). In France, mass screening with the Guaiac Faecal Occult Blood Test (g-FOBT) was extended to the entire country in 2008 (2). If at least 50% of the population would take the screening test every two years, mortality could be reduced by 16% to 18% (3,4). In France, the mean patient participation rate for the period 2009-2010 was 34% (5).

Previous studies were conducted to explore patients' and GPs' barriers to CRC mass screening. As regards patients, women taking other preventive tests had the highest participation rate (6). Some patients requested specific information on colorectal cancer and the risks and benefits of screening (7). The GP's experience and their level of involvement were the most important factors influencing patients during the screening decision-making process (7,8). Some GPs complained about the time required to administer the

Correspondence: Isabelle Aubin-Auger, 40 rue Carnot, 95230 Soisy sous Montmorency, France, Tel: + 33 134 051 818, Fax: + 33 134 051 819, E-mail: isabelle, aubinauger@sfr.fr



test during a consultation; others reported insufficient training while others doubted the relevance of the screening.

In France, implementation relies on a local 'cancer prevention association' set up for national breast cancer mass screening. All adults aged 50 to 74 receive a letter from their local cancer prevention association, encouraging them to visit their GP to take the test. Patients must then send the completed test and an identity form to a central laboratory; if they do not, they receive a reminder. Finally, another three months later, those who did not go to see their GP receive a test directly at home (9). Each test package has the same content, i.e. an explanatory leaflet containing information on technical procedures for performing the test and a cardboard for the stool samples.

The way doctors explain the test can impact the participation rate. The content of physicians' CRC recommendations has been explored via semi-structured interviews with GPs and it has been concluded that this content is a critical issue (10). When patients come to GPs' practices and ask for the test, doctors should pay attention to various aspects of the consultation. Firstly, GPs should identify patients at high risk of CRC or those showing symptoms that require diagnostic investigations. Secondly, they have to explain how to perform FOBT as well as the meaning and consequences of the results, especially the need for a colonoscopy in the event of a positive test. The entire process is performed by the GPs themselves. They could also improve the participation rate by identifying patients that do not spontaneously request screening.

A previous study explored physician-patient discussions about CRC screening in the USA (11). American guidelines recommend different options for CRC screening including colonoscopy, so the discussions mainly focused on recommended colonoscopy. To our knowledge, no study was conducted in another context with only gFOBT recommended for the mass screening.

This study aims to explore GPs' performance during consultations where patients come to request the test. The study focuses on two different aspects: the core content of the consultation and the communication style used between GPs and their patients. Patients not requesting the test were not included in this research.

METHODS

Design

In order to assess GPs' performance directly, recorded consultations were used as a means to observe the conversations between the physicians and their patients (12). In order to facilitate data collection for this study, we chose audio recordings instead of video. In this qualitative descriptive study, content analysis was used in order to stay close to the sampled data and to the surface of words and recorded consultations, without further interpretation and conceptualization (13). The study was approved by the ethical committee CPP Ile de France XI. There was no financial support or conflict of interest.

Participant recruitment

Purposive sampling was used to recruit GPs in order to have the greatest possible diversity in terms of age. gender and screening experience (i.e. experience in delivering the test and number of tests delivered). Pilot regions that had been delivering the test for a long time and others where it had been released more recently were equally represented, taking advantage of the progressive involvement of the various regions throughout France. Fifteen doctors gave their informed consent to audio record at least their next three consultations while administering FOBT. The only inclusion criterion for the patients was their acceptance to be recorded. Written consent was requested and the participants' anonymity and confidentiality were ensured.

Data collection

Data were collected from June 2010 until June 2011. Only the part of the consultation concerning the FOBT was audio taped. Data collection and analysis were performed using a continuous process. Data collection was stopped when data saturation on consultation content was reached.

Data analysis

In order to get a better description of the real content, two different methods were used and triangulated to analyse respectively the core content of the consultation and the communication between GPs and patients.

All audio taped consultations were fully transcribed. Analysis was performed by three researchers (IAA, AM and MB) using a predefined framework from our previous research analysis (7). The categories of the predefined framework were: GPs' and patients' barriers and facilitating factors, information given to the patient, and practical and technical aspects of the FOBT. Three researchers independently performed open and selective coding using QSR Nvivo 9 software. The various elements were shared and discussed through an iterative process of constant comparison. Data saturation was reached at 33 recorded consultations.

Next, the Roter Interaction Analysis System (RIAS) was used by a different research team to analyse verbal interaction between GPs and patients. The 40 codes defined in the RIAS handbook were used by three researchers (IAA, PVR and KM) to distinguish



152 I. Aubin-Auger et al.

task-related and socio-emotional communication (14,15). Task-related codes include medical condition, therapeutic regimen, lifestyle and psychosocial information, and all orientational or instructional statements told by GPs related to the clinic visit. Socio-emotional codes include all statements of verbal or non-verbal exchange indicating mainly reassurance, encouragement, approval or disapproval, criticism, empathy and so on. The ratio of codes related to psychosocial and socio-emotional aspects (SE) versus those related to biomedical issues (BM), such as the medical conditions or therapeutic regimen, was calculated. This SE/BM ratio has been used in previous studies to explore patient-centred interaction interchange (15). A ratio of > 1 indicated a patient-centred consultation. The RIAS also allowed us to determine verbal dominance by calculating the sum of all patient utterances divided by the sum of all physician statements. Each GP and each consultation was identified and the scores for each consultation and each GP were calculated. The RIAS coding was first done separately for 10% of the data then shared to check mutual concordance. This process was renewed until all of the data were analysed.

RESULTS

Samples

Physicians' sample. Nine GPs from six different areas in France sent in at least three consultations. The other GPs were excluded because they did not send in any recordings or only one or two recorded consultations. Other reasons for not participating were technical problems in audio taping the consultations and insufficient time to participate. The characteristics of the GPs included in the study are described in Table 1.

Patient characteristics. Thirty-six patients, 50 to 72 years old, took part in the 35 recorded consultations (one consultation was for a couple—Doctor 1, consultation 4). Their median age was 61.5. Twenty-two (61%) were men and 14 (39%) were women; 85% came to the consultation for other reasons; 22 (61%) came for their first FOBT and 14 for a repeat test.

Content analysis

The duration of the recorded consultations ranged from 2 min 18 s to 8 min 28 s with a mean of 5 min 38 s.

Doctor statements. Most of the GPs looked for medical history when patients came in for their first test (Table 2, Quote 1: Q1). Symptoms requiring a colonoscopy, such as abdominal pain, blood in faeces or constipation, were not always looked for (Q2). Only a few of the GPs asked about a previous colonoscopy. When patients came in for a second or third test, only one GP (Doctor 9) looked at whether or not the patient was still eligible for screening and asked about new medical events since the last test. A large portion of the doctors' statements involved technical explanations. All of them detailed the entire procedure (i.e. the quantity of the stool samples, the number of days samples were to be taken and how the samples were to be stored). Three doctors (Doctors 3, 4 and 5) mentioned the leaflet but none of them actually used it as an educational tool (Q3). In the event of a positive test, some of the physicians mentioned that a colonoscopy was necessary while others only suggested it was a possibility (Q4). The meaning of a positive test was not explained by all GPs (Q5). Only a few of the GPs mentioned the test being taken every two years and none spoke of interval symptoms requiring a colonoscopy. Two GPs (Doctors 2 and 6) elaborated on epidemiological aspects to convince their patients (Q6). One doctor (Doctor 2) used positive personal experience, describing an adenoma diagnosed after an FOBT. The diagnosis of a benign tumour and the potential to recover before the onset of CRC were sometimes mentioned. The word 'adenoma' was often used but most of the time without explanation.

Most of the GPs explained that the aim of the test was to look for occult blood in faeces. The meaning of this occult blood often remained unclear. Only one doctor (Doctor 6) mentioned the possibility of a false-positive (Q7).

Table 1. Characteristics of GPs, their practice and their recruitment.

GP	1	2	3	4	5	6	7	8	9
Age	58	52	32	29	51	63	59	33	49
Gender	M	M	F	F	F	M	M	M	F
Year practice set up	1985	1987	2009	Not yet	1988	1979	1978	Not yet	1995
Size of Practice	Group	Single	Group	Group	Group	Single	Group	N/A	Group
Location	Urban	Urban	Rural	Urban	Urban	Urban	Rural	Rural	Urban
Teaching GP?	Yes	Yes	No	No	No	Yes	Yes	No	Yes
Year of first prescription of FOBT	2006	2005	2008	2008	2007	2000	N/A	2007	2000
Number of consultations recorded	4 (5 patients)	4	5	5	4	4	3	3	3

N/A: not available.



Table 2. Quotes: GPs and patients' statements (in bold, the one who spoke).

	Quotes			
Patients' medical history	Q1: 'Are there any bowel problems in your family?' (GP 2 ^a , patient 1) Q2: 'At the present time, don't you have blood in your faeces or problems with your last bowel movements?' (GP 3 ^a , patient 3)			
Technical explanations	Q3: 'So you have a leaflet but I am going to give you some explanations.' (GP 3a, patient 1)			
Colonoscopy	Q4: 'There is often a little damage to your bowels which could bleed and generally you need a colonoscopy.' (GP 4³, patient 3)			
Follow-up to the test	Q5: 'If you have blood in your bowels, it is not necessarily serious not necessarily a cancer.' (GP 4ª, patient 2)			
Arguments to convince patients	Q6: 'There are 32 000 people, a little more than 32 000 people affected by colorectal cancer per year in France and about 16 000 deaths' (GP 6 ^a , patient 3)			
The test	Q7: 'And there will be 5 or 6 patients with a normal colonoscopy; they will have been bothered for nothing (GP 6^{a} , patient 3)			
Patients' questions	Q8: 'So three days?' (GP 7, patient 2 ^a)			
-	Q9: 'And what do I do if I have two stools a day?' (GP 5, patient 3a)			

^aThe one who spoke.

Patient statements (Table 2). When doctors asked what patients knew about the test, most patients gave no answer, and some of them had vague notions of a free test taken to 'avoid cancer'. The sources of information on FOBT varied, including websites, television shows or relatives. Most of the patients' questions concerned technical aspects of completing the test (i.e. taking three samples on different days or on the same day, the number of days before the results, etc.) (Q8). Some patients were anxious because they had previously had blood in their faeces due to haemorrhoids (Doctor 6, patient 3).

Communication analysis

Tables 3 and 4 summarize the quantitative features of the number of occurrences according to RIAS coding. To make the results easier to understand, the RIAS categories were arranged in the same manner as described in a previous publication (16).

The GPs' utterances predominantly focused (58.3%) on giving information about medical conditions and other conditions (Table 3). Another main category during communication was procedural, with more than 7% of the utterances being used to give instructions. These

Table 3. GPs' content of discussion during the consultation.

Communication category	Number of utterances (% utterances)	Combination of RIAS categories		
Data gathering—biomedical	150/1830(8.2%)	Asks closed-ended questions-medical conditions: 83		
		Asks closed-ended questions-other: 36		
		Asks open-ended questions-medical conditions: 11		
		Asks open-ended questions-other: 20		
Patient education and counselling—biomedical	1068/1830(58.3%)	Gives information-medical conditions: 252		
		Gives information-other: 816		
Facilitation and patient activation	167/1830(9.1%)	Asks for opinion: 2		
		Asks for permission: 2		
		Asks for reassurance: 1		
		Asks for understanding: 126		
		Back channel responses: 7		
		Check for understanding: 29		
Rapport-building: positive	117/1830(6.4%)	Laughs—tells jokes: 22		
		Shows approval: 20		
		Shows agreement: 68		
Rapport-building: negative	7/1830(0.3%)	Shows criticism: 5		
		Shows disapproval: 2		
Rapport-building: emotional	170/1830(9.3%)	Empathy: 3		
		Legitimization: 3		
		Shows concern or worry: 19		
		Reassures encourages or shows optimism: 144		
		Partnership statements: 1		
Rapport-building: social	17/1830(0.9%)	Personal remarks—social conversation: 15		
		Self-disclosure: 2		
Procedural	141/1830(7.8%)	Gives orientation—instructions: 141		



154 I. Aubin-Auger et al.

Table 4. Patients' content of discussion during the consultation.

Communication category	Number of utterances 946 (% utterances)	Combination of RIAS categories		
Question asking—biomedical	66/946(6.9%)	All questions-medical: 4		
		All questions-other: 54		
		Bid for repetition: 8		
Question asking—lifestyle/psychosocial	1/946(0.1%)	All questions-lifestyle: 1		
		All questions-psychosocial: 0		
Information giving—biomedical	203/946(21.4%)	Gives information-medical condition: 81		
		Gives information—other: 122		
Information giving—lifestyle/psychosocial	3/946(0.3%)	Gives information-lifestyle: 2		
		Gives information—psychosocial: 1		
Patient activation and engagement	134/946(14.1%)	Asks for reassurance: 72		
		Asks for understanding: 16		
		Check for understanding: 46		
Rapport-building: positive	465/946(49.2%)	Laughs—tells jokes: 16		
		Shows approval: 85		
		Gives compliment: 2		
		Shows agreement: 356		
Rapport-building: negative	6/946(0.63%)	Shows criticism: 4		
		Shows disapproval: 2		
Rapport-building: emotional	19/946(2.1%)	Legitimization: 2		
		Shows concern or worry: 9		
		Reassures, encourages or shows optimism: 8		
Rapport-building/social	54/946(5.8%)	Personal remarks—social conversation: 54		
Procedural	1/946(0.1%)	Gives orientation—instructions: 1		

categories (procedures and other conditions) concerning technical aspects of the FOBT accounted for a total of 63.3% of all occurrences.

Only three of the doctors began by asking the patients what they already knew about the test and the topic. When they did, it was often with a closedended question. Some doctors did not wait for the patients' answers (Doctor 4, patient 3; Doctor 5, patient 2; Doctor 6, patient 3; and Doctor 7, patient 3) and carried on distributing the test kit and explaining the screening in the same way. 7.8% of the utterances concerned reassurance or encouragement. Only one doctor (Doctor 8) showed empathy. There were no partnership statements and no questions about lifestyle and psychosocial conditions.

The largest share of patient communication (49.2%) involved showing approval or agreement (Table 4). Patient interaction mainly involved asking for technical information (all questions—other: 6.9%) as well as for understanding and reassurance (14.1%). Few patients gave information or asked questions regarding lifestyle or psychosocial problems but doctors did not take these aspects into account (0.3% for patients/0 for doctors). Patients were more inclined to make personal comments (5.8%).

Comparing the two tables on patient activation and facilitation, doctors' utterances occurred less frequently than patients' (9.1% versus 14.1%). Doctors mainly asked for understanding and patients mainly asked for reassurance.

Patients' answers were only rarely used as a guide for the next part of the consultation.

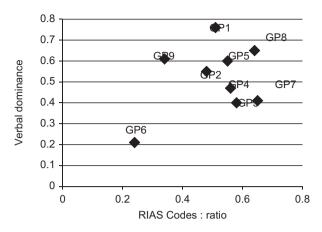
None of the doctors reached a ratio of socioemotional (SE) statements to biomedical (BM) statements of >1 which indicated that consultation were not patient-centred (Figure 1). The mean SE/BM score was 0.5. Verbal dominance was calculated using the ratio of patients' statements to doctors' statements (Figure 1). It ranged from 0.21 to 0.76 (mean: 0.51), another illustration of the doctors' verbal dominance.

DISCUSSION

Main findings

This qualitative descriptive study showed that the core content of consultations during which French GPs delivered FOBT was oriented towards biomedical statements with a large portion devoted to technical aspects. The communication was not patient-centred. The two different methods of analysis were complementary and showed overwhelming verbal dominance by the doctors. The main categories in the Roter analysis involved patient counselling and gathering biomedical data. Patient facilitation and activation enabled but little interaction between doctors and patients. Physicians seemed to deal more with personal habits than with specific communication skills. They used a predetermined speech and did not adapt its content to each patient.





Each GP is represented with a personal number.

Verbal dominance score: ratio of patients' statements to GPs' statements.

RIAS codes ratio SE/BM: ratio of socio-emotional statements to biomedical statements

Figure 1. Patient-centred communication and verbal dominance for all sampled GPs.

Strengths and limitations

This original study shows the real content of the consultation while the GPs delivered FOBT. Even though the doctors tried to do their best, many areas need improvement. The purposive sample allowed for diversity in physicians' attitudes and skills. The Roter analysis (RIAS) highlighted the lack of communication skills.

All of the doctors had to volunteer for the study. They may have selected the patients for the recorded consultations. GPs did not report whether or not the recorded patients actually took the test or not. Nonverbal communication was missed, as the consultations were not videotaped. None the less, the data collected did allow us to explore GP-patient communication. Data collection would have been even more difficult using video. Other methods such as observation and standardized patients could have been chosen to assess the GPs' performance.

In addition, patients who came and asked for the test had probably already made the decision to participate in the programme. This may have influenced the content and effects of doctors-patients' communication

The core content of the consultation

Most of the results of the content analysis were consistent with our previous study (7). In that focus group study, the GPs thought that one of the main obstacles for patients was their misunderstanding of the screening process and they specifically mentioned problems with technical precautions, such as sampling three days in a row (7). This is consistent with the results of the recorded consultations of this study, where, in both the content analysis and the Roter analysis, most of the physicians'

statements involved technical explanations. Using the leaflet could help GPs to have more time to elaborate on other arguments about follow up to the test.

In the patients' interviews of our previous study, a positive test was sometimes automatically linked to cancer (7). In the recorded consultations of the current study, the explanations about the meaning of a positive test, if any, were often unclear. Some doctors even linked a positive test to a diagnosis of cancer. The detection of an adenoma was not used as a means to justify the usefulness of screening before the onset of an actual cancer. The colonoscopy was not always mentioned as mandatory. Moreover, in another study it was reported that 10-15% of patients with a positive test do not resolve the issue through a colonoscopy, therefore, decreasing the effectiveness of mass screening (5).

In our previous study, some patients asked their GP to give reasons why screening was necessary, such as epidemiological factors (e.g. screening effectiveness) (7). Only a few of the physicians of the current study used such arguments to convince their patients in the recorded consultations. One explanation for this may be that our current study focused on patients spontaneously requesting the test, so GPs may have thought that no further arguments were needed to convince the patients.

Communication skills

A previous study on CRC screening showed that the discussion between GPs and their patients did not facilitate shared decision making (11). In the American context, GPs did not take the patient's preferences into account and focused on colonoscopy. Patientcentred consulting skills are considered crucial for effective primary care (18). Some dimensions of this



approach include understanding the personal meaning of the illness for each individual patient, shared decision making and patient preferences in terms of receiving information (19). In our study, only one doctor looked at patients' opinions and no partnership statements were uttered that could have shown the physician's alliance with the patient. Wackerbarth had previously shown in interviews with doctors that only a few physicians explored patients' health beliefs for CRC screening (10). This approach does not allow for shared decision making (19).

Towards a patient-centred approach

Stewart described the benefits of this approach in terms of improved satisfaction, adherence and health outcomes (18,20). The observational study conducted by Little et al., showed patients' preferences for patientcenteredness rather than focusing on biomedical aspects (21). In our study, the recorded consultations were rather long (with a maximum length of eight minutes) while previous studies had shown that patientcentred care was not time consuming (22-24). Even though communication is less important when the patients themselves ask for the test, a patient-centred approach could be developed, for example exploring both the disease and the patient's experience with the illness. First exploring patients' knowledge of and experience with CRC screening could personalize the information and save time. Other components of the patient-centred clinical method should prove very important for non-compliant patients like the exploration of patients 'fears and beliefs with often experienced CRC in their family or friends (23).

In the recorded consultations, we observed that the physicians did not ask for patient agreement and did not seek to find out patients' preferences in terms of information. The amount of information patients wish to have varies widely. Previous studies showed that patients can be divided into two groups: seekers needing more information (around 80%) and avoiders who cope better with less information (around 20%) (25).

The physicians' communication style appeared to be an important issue as well. Patients whose doctor seemed enthusiastic when discussing the FOBT more often reported a recent test (26). GPs should take these points into account in order to achieve better communication.

Practice implications

Analysis of recorded consultations with French GPs confirms that the way of delivering FOBT should be improved. Since there is a lack of time during consultations with GPs and this time should be used more efficiently. Improved use of the leaflet should allow GPs to have more time to elaborate on other arguments, and to give important information, which is now missing; in particular, on follow-up to the test and the need for a colonoscopy in case of a positive test.

Communication with patients was highly standardized and neither sought out the patients' fears and opinions nor gave the patients the chance to express them. Communication skills have to be improved in order to provide the correct amount and type of information for each patient. Incorporating patients' perspectives and addressing patient concerns could enable shared decisions to be reached.

Conclusion

From this qualitative descriptive study, we can conclude that the core content of consultations during which French GPs delivered FOBT was oriented towards biomedical statements with a large portion of time spent to technical explanations. The communication style in these consultations was not patient-centred. Intervention studies should be conducted to explore how patientcentred communication could improve the FOBT delivery and CRC screening in daily practice.

ACKNOWLEDGEMENTS

The authors thank all GPs who participated in this study: Anne Bottet, Gilbert Souweine, Jean Pierre Jacquet, Marie Alice Enault, Dan Baruch, Nadège Laporte, Michel Papa, Catherine Pierre, Sébastien Cadier and to Teresa Pawlikowska for her help with the Roter analysis and Jean Sébastien Cadwallader for re-writing.

Declaration of interest: The authors report no conflicts of interest. The authors alone are responsible for the content and writing of the paper.

Ethical committee approval CPP Ile de France XI. Financial support: none.

REFERENCES

- 1. Atkin WS, Edwards R, Kralj-Hans I, Wooldrage K, Hart A, Northover J, et al. Once-only flexible sigmoidoscopy screening in prevention of colorectal cancer: A multicentre randomized controlled trial. Lancet 2010;375:1624-33.
- Maraninchi D. Editorial numéro thématique sur le dépistage du cancer colorectal. Bull Epidémiol Hebd 2009;2-3:13-4.
- Faivre J, Dancourt V, Lejeune C, Tazi MA, Lamour J, Gerard D, et al. Reduction in colorectal cancer mortality by faecal occult blood screening in a French controlled study. Gastroenterology 2004; 126:1674-80.
- 4. Bretagne J-F, Manfredi S, Heresbach D. Dépistage de masse du cancer colorectal: Présent et avenir. Presse Med. 2008;36:
- Evaluation du programme de dépistage du cancer colorectal: Taux de participation au programme de dépistage organisé du



- cancer colorectal 2009-2010. http://archives.invs.sante.fr/ surveillance/cancers depistage/participation depistage colorectal age 2009 2010.htm (accessed 5 January 2013).
- 6. Goulard H, Boussac-Zarebska M, Bloch J. Facteurs d'adhésion au dépistage organisé du cancer colorectal: Etude Fado-colorectal. France, Décembre 2006-Avril 2007. Bull Epidémiol Hebd. 2009; 2-3:25-9
- 7. Aubin-Auger I, Mercier A, Lebeau J-P, Baumann L, Peremans L, Van Roven P. Obstacles to colorectal screening in general practice: A qualitative study of GPs and patients. Fam Pract. 2011;28:670-6.
- 8. Lasser KE, Azyanian J, Fletcher R, Del Vecchio Good MJ. Barriers to colorectal cancer screening in community health centers: A qualitative study. BMC Fam Pract. 2008;9:15.
- Viguier J. L'organisation du dépistage du cancer colorectal en France. Bull Epidémiol Hebd. 2009;2-3:19-22.
- Wackerbarth SB, Tarasenko YN, Joyce JM, Haist SA. Physician colorectal cancer screening recommendations: An examination based on informed decision making. Patient Educ Couns. 2007; 66:43-50
- 11. McQueen A, Bartholomew LK, Greisinger AJ, Medina GG, Hawley ST, Haidet P. Behind closed doors: Physician-patient discussions about colorectal cancer screening. J Gen Intern Med. 2009:24:1228-35
- Rethans JJ, Westin S, Hays R. Methods for quality assessment in general practice. Fam Pract. 1996:13:468-76.
- Sandelowski M. Whatever happened to qualitative description? Res Nurs Health 2000;23:334-340.
- Roter D. The Roter method of interaction process analysis. Debra Roter, 1977-2011.
- Roter D, Larson S. The Roter interaction analysis system (RIAS): Utility and flexibility for analysis of medical interactions. Patient Educ Couns, 2002:46:243-51.

- Pawlikowska T, Zhang W, Griffiths F, Van Dalen J, Van der Vleuten C. Verbal and non verbal behavior doctors and patients in primary care consultations. How this relate to patients enablement. Patient Educ Couns, 2012:86:70-6.
- Vail L, Sandhu H, Fisher J, Cooke H, Dale J, Barnett M. Hospital consultants breaking bad news with simulated patients: An analysis of communication using the Roter interaction analysis system. Patient Educ Couns. 2011:83:185-194.
- Stewart M, Belle Brown J, Donner A, McWhinney I, Oates J, Weston W, et al. The impact of patient-centered care on outcomes. J Fam Pract. 2000:49:796-804
- 19. Mead N, Bower P. Patient-centred consultations and outcomes in primary care: a review of the literature. Patient Educ Couns. 2002:48:51-61.
- Stewart M. Towards a global definition of patient-centred care. Br Med J. 2001;322:444-5.
- Little P, Everitt H, Williamson I, Warner G, Moore M, Gould C, et al. Preferences of patients for patient-centered approach to consultation in primary care. Br Med J. 2001;322:1-7.
- Marvel K, Epstein RM, Flowers K, Beckmann HB. Soliciting the patients' agenda: Have we improved? J Am Med Assoc. 1999:281:283-7.
- 23. Stewart M. Brown JB. Weston WW. McWhinney IR. McWilliam CL. Freeman TR. Patient-centered medicine: Transforming the clinical method. 2nd edition. Abingdon: Radcliffe Medical Press, 2003.
- Richard C, Lussier MT. La communication professionnelle en santé ERPL Quéhec 2005
- Silverman J. Kutz S. Draper J. Skills for communicating with patients. 2nd edition. Oxford: Radcliffe Publishing, 2004.
- Fox SA, Heritage J, Stockdale SE, Asch SM, Duan N, Reise SP. Cancer screening adherence: Does physician-patient communication matter? Patient Educ Couns. 2009:75:178-184.

