Physicians' Responses to Patients: A Study of Factors Involved in the Office Interview

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The emotional responses of a physician are an important determinant for the outcome of each patient encounter. This study examines how physician, patient, and problem characteristics influence the emotions of the physician. In a family medical center, 559 office visits were recorded by 13 residents and 3 staff physicians on an encounter sheet. The emotions studied were anxiety, frustration, interest, and comfort in dealing with problem and note of feelings at the end of the encounter.

The physicians reported more anxiety and frustration, less interest and comfort, and a less satisfactory note at the end of the interview when they were junior residents, when they were dealing with psychosocial problems, or when seeing lower social-class patients.

Age and sex of patients and time of day of interview were not important in determining the physicians' responses.

In a situation involving junior residents dealing with psychosocial problems, awareness of the anxiety and frustration present should enable the teacher of family medicine to become more effective.

In all physician-patient encounters a variety of feelings are evoked within both parties, sometimes incompletely or not consciously realized by either. Balint writes extensively about the physician's emotional response to his/her patient, a phenomenon labeled countertransference in classical psychoanalytical terms.[1] He discusses the very powerful influence of these responses on the eventual outcome of each encounter, on the future management of the patient's problem, as well as on the patient's and the physician's respective satisfactions. Browne and Freeling call these responses the "sixth sense," or "the emotional experience evoked in the examining doctor by the attitude and bearing of the patient."[2] The question

here seems to be: How can this "sixth sense" be studied and what are its component parts? In the past a number of studies have been done in this area, mostly using questionnaires, but they have all involved psychiatrists and psychiatric residents, based in a formal psychotherapeutic setting. Lowinger and Dobie found that among other things, the physician's attitudes and emotional responses were significantly related to patient illness categories, race, religion, and social class.[3] Other studies have stressed the role of social class and diagnostic groups in the generation of negative responses, and much has been written about social class differences between the physician and the patient as a major causative factor.[4-6] Apart from Balint's work no studies on these responses were found in the family practice literature.

In this study a questionnaire was used to gather information about emotional responses to patients

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in office interviews. The objective was to study how these responses are related to the following:

A. The patient: age, sex, and social class.

B. The physician: sex, level of training, and social background.

C. The problem: content of problem presented and whether the problem was new or of a continuing nature.

D. Time of day of interview.

It was hypothesized that "negative" responses (higher anxiety and frustration, lower interest and comfort, as well as less satisfactory note at end of interview), as recorded by the physicians, would be associated with the age and sex of both the patients and their physicians, with differences in social background, with junior resident status, with psychosocial problems, and with interviews late in the day. The last hypothesis was based on the assumption that most people will find it easier to deal with a complex problem early in the day when they are feeling fresh and rested rather than tired at the end of a difficult day. Byrne and Long mentioned a "much greater probability of a long set of instructions at the start of a morning surgery than at the end of that surgery, but evening surgeries seem, on the whole, to operate on the reverse."[7]

Methods

This study was conducted at the Family Medical Centre of Victoria Hospital, London, Ontario. All patient contacts from the four teaching practices during regular office hours were included until a total of approximately 500 contacts was reached. The time period involved was eight days. All patient contacts outside of the office were excluded, as were contacts by health-care personnel other than staff physicians and residents. A total of 16 physicians were involved, four of whom were female. Four were first year residents; seven, second year residents; two, third year residents; and three, staff physicians.

The main tool of the study was the visit data sheet used for each patient encounter at the Department of Family Medicine, University of Western Ontario. In its basic form it provides information regarding the patient's name, age, sex; the provider of care; and the problems dealt with; as well as whether the problems are new or of a continuing nature. Three new areas were added to the sheet for this study (Figure 1).

1. Time of day of interview in three categories: morning, early afternoon, late afternoon.

2. Three questions, completed by the staff physicians and residents, about their feelings experienced during that encounter: their anxiety, interest, frustration; their comfort in dealing with the problem content; and the note on which the interview ended. These areas of feeling were selected as they were felt to be most easily identifiable without a great degree of self-awareness.

3. The patient's occupation was recorded by a receptionist upon the return of the sheet from the physician. Using the Blishen Socioeconomic Scale, a social class was assigned and the six social classes contained in the scale were regrouped into three larger categories.[8] For a small number of patients no occupation was known and for most of these, the receptionists' and nurses' subjective appraisals of their socioeconomic status were employed. An additional fourth social class was assigned to a group of university students whose social background was not known.

Upon collection of all the sheets, the patients' problems were categorized by the author into three groups: mainly organic, mixed, mainly psychosocial. The "mainly organic" group consists of conditions usually associated with a physiological disturbance as well as most physical symptoms, eg, diabetes, infections, heart failure, headache, and procedures such as antenatal and well-baby care. The "mainly psychosocial" group consists of all conditions which, in the International Classification of Health Problems in Primary Care (ICHPPC), are listed with numbers 294 to 309 and y80 to y96, eg, anxiety, psychotic behavior, financial problems, insomnia.[9] The "mixed" group consists of problems in which organic or psychosocial predominance cannot possibly be determined on the basis of labeling alone, eg, obesity, anorexia, enuresis, dyspareunia, and fatigue. Where there was more than one problem listed, usually only the first two would be used as determinants. Thus, "diabetes" followed by "depression" would be listed as "mixed." However, when an organic problem of a seemingly minor nature, such as an upper respiratory tract infection, followed a problem of living, the labeling would be "mainly psychosocial."

SURNAME: _____

| 1 2 3 4 5 6 | 7 8 9 10 11 12 13 | 14 | 15 16 17 18 19 20 | 21 22 23 | 24 | | 25 |

day month year   Patient number   M / F   sex   1 / 2   day month year

Date of service   Date of birth   HCP   2   fmc

Office 1
Hospital 2
Emerg. 3
Home 4
Other 5

| 8 AM – 12:59 PM | 1 PM – 3:29 PM | AFTER 3:30 PM |

TIME OF DAY

Problems Dealt With Today

(A)   List in order of importance

(B)   Remember procedures are not problems

(C)   Remember to check (√) either "N" for new problem
or "C" for continuing problem

26   27 28 29 30
N 1
C 2

31   32 33 34 35
N 1
C 2

36   37 38 39 40
N 1
C 2

41   42 43 44 45
N 1
C 2

46   47 48 49 50
N 1
C 2

A.   Please indicate to what extent you experienced these feelings* during this encounter.

   1.   Anxiety   A B S E N T   S T R O N G L Y   P R E S E N T

   2.   Interest

   3.   Frustration

     *If specific reason, please indicate _

B.   How comfortable are you in dealing with this type of problem?

     Very Uncomfortable   Very Comfortable

C.   On what note did this encounter end?

     Unsatisfactory   Excellent

Figure 1. Visit Data Sheet

Table 1. Characteristics of Encounters		
		%of Encounters N = 559
Sex of patient	M	34.2
	F	65.8
Age of patient	0-10	14.3
	11-19	17.2
	20-34	28.8
	35-54	19.5
	55 or more	19.7
Problem status	New	45.6
	Continuing	54.4
Social class of patient	I Hi	8.9
	II Mid	29.0
	III Low	60.5
	IV Student	1.6
Time of day	8 AM-12:59 PM	41.3
	1 PM-3:29 PM	29.5
	After 3:30	29.2
Problem content	Mainly organic	70.5
	Mixed	17.7
	Mainly psychosocial	11.8

The scales for each of the feeling responses were graded from 0 to 8 except for the "end note" question which was rated from –4 to +4. The data on each visit were transferred to edge-punched cards for analysis.

Prior to starting the study, the cooperation of staff physicians and residents was enlisted and the study outlined to them in general terms. On completion of the study the residents were asked about their social background in order to assign each to a social class in the same fashion as were patients. Eight of the 13 residents came from an upper class social background, two from a middle class, and three from a working class background. The cooperation of the physicians involved was very good, with less than ten sheets being ineligible because of lack of information. One resident had misunderstood the instructions and his data have been eliminated from the results. Because of billing procedures it is reasonably certain that all office encounters during the time period are included in the study.

Results

The basic data for the 559 encounters are shown in Table 1. The preponderance of females, of young people, of people of lower social class, and of mainly organic problems is notable. The sex ratio is comparable to most studies of attendance in North America. The social class composition is compatible with the placement of the Health Care Centre in a primarily working class district.

Tables 2, 3, and 4 illustrate the findings for the physicians' responses according to the variables studied. For the sake of simplicity only the median value is shown. Statistical significance was tested by an extension of the median test.[10]

Patient		Number of Contacts	Anxiety*	Interest*	Frustration*	Comfort*	End Note**
1. Age	0-10	83	2.3	5.5	1.3	5.3	1.3
	11-19	96	1.5	5.3	1.9	5.4	1.4
	20-34	161	2.1	5.5	1.5	5.3	1.3
	35-54	109	1.8	5.3	2.5	5.5	1.7
	5 or more	110	1.7	6.6	1.5	5.7	2.1
2. Sex	M	191	1.5	5.4	1.4	5.6	1.8
	F	368	2.0	5.5	1.7	5.3	1.4
3. Social Class	Hi	50	1.5	6.6†	1.3†	5.4	2.0†
	Mid	162	1.8	6.6	1.4	5.4	1.5
	Low	338	1.9	5.3	2.1	5.4	1.4
Overall			1.8	5.5	1.5	5.4	1.5

Table 2. Emotional Responses of Physicians to Patient Characteristics (Median Values)

* Scale values from 0 to 8
** Scale values from -4 to +4
† P ≤ 0.05 using Median Test

Patient Characteristics

1. Age—No definite trends were seen.
2. Sex—A trend towards more "negative" feelings was seen for female patients, ie, more anxiety and frustration, less comfort, as well as a less satisfactory "end note."
3. Social Class—A definite trend towards more "negative" feelings for patients of lower social classes was seen; this trend was consistent and involved all of the emotions studied except comfort. Statistical significance was seen for interest, frustration, and "end note."

Physician Characteristics

1. Sex—Higher anxiety was seen for female physicians as well as less comfort and less satisfactory "end note."
2. Level of Training—A very definite trend towards more "positive" responses (lessening of anxiety and frustration, increase of comfort, and more satisfactory "end note") as the physicians progress in their training. Interest seems to be less affected by training. Staff physicians are easily distinguished from the rest of the group by their responses.
3. Social Background of Residents—A trend towards more anxiety and frustration for residents of lower class background. Interest, comfort, and "end note" deviate in that residents of middle class background tend to record the lowest scale values.

Problem Characteristics

1. New vs Continuing Problems—More anxiety for new problems and more frustration for continuing problems were the only trends seen.
2. Content—A very definite, consistent trend is seen with "negative" responses increasing from "mainly organic" to "mainly psychosocial," with "mixed" falling in between. This holds true for anxiety, frustration, comfort, and "end note." However, the trend is reversed for interest; psychosocial problems seemed to stimulate the most interest at the same time as they generated the most "negative" responses.

Table 3. Emotional Responses of Physicians by Physician Characteristics (Median Values)

Physician		Number of Contacts	Anxiety*	Interest*	Frustration*	Comfort*	End Note**
1. Sex	M	369	1.4†	5.5	1.5	6.1†	2.1†
	F	190	3.0	5.4	1.8	4.9	1.1
2. Level	Res I	194	2.7†	5.2†	2.8†	5.0†	1.2†
Of	Res II	221	1.9	5.3	1.4	5.4	1.3
Training	Res III	69	2.4	5.1	1.3	6.6	1.9
	Staff	75	1.1	6.9	1.1	6.8	2.9
3. Social	Hi	257	1.5†	5.1†	1.4†	5.6†	1.6†
Background	Mid	91	2.7	4.7	1.5	5.0	0.9
of	Low	136	3.2	6.8	3.3	5.1	1.3
Residents							
Overall			1.8	5.5	1.5	5.4	1.5

* Scale values from 0 to 8
** Scale values from −4 to +4
† P ≤ 0.01 using Median Test

3. Time of Day of Interview—Early afternoon contacts tend to evoke the most anxiety and frustration and the least comfort.

Table 5 demonstrates that staff physicians tend to see fewer organic and more mixed and psychosocial problems than do the residents; also that second year residents see considerably more organic problems relative to those seen by the other resident groups, and consequently, they see fewer mixed and psychosocial problems.

When median values were calculated, the most notable finding was the lack of variability for second year resident responses, ie, less increase in anxiety and interest and less decrease in comfort and "end note" when moving from "organic" to "psychosocial" problems.

Table 6 demonstrates that lower social class patients do not present with more psychosocial problems than do other social classes. Median calculations demonstrated that the response to upper social class patients is less influenced by the type of problem presented than is the response to working class patients.

For purposes of validation, median frustration was calculated for each of the "end note" responses and a fairly linear distribution was noted, signifying judicious responses by the participants (Figure 2).

Discussion

This study supports the hypotheses that physicians' feelings are associated with problem content, social class, and level of training. In particular, the physicians tended to feel more anxious and frustrated, less comfortable, and less satisfied at the end of an interview if they were junior residents, female, or from a lower social class background. These feelings were also more likely to be recorded if the physicians were dealing with psychosocial problems or patients of lower social class.

The age and sex of patients do not seem to be strong determinants of physician responses. However, there was a moderate trend towards more negative responses for female patients. Although a specific explanation of this was not sought, this

Table 4. Emotional Responses of Physicians to Problem Characteristics (Median Values)

Patient Contact		Number of Contacts	Anxiety*	Interest*	Frustration*	Comfort*	End Note**
1. New		255	2.0	5.4	1.4	5.4	1.4
Continuing		304	1.6	5.6	1.8	5.4	1.5
2. Content	Organic	394	1.4†	5.3†	1.3†	5.7†	1.6
	Mixed	99	2.3	5.5	2.7	5.1	1.4
	Psychosocial	66	3.1	6.6	4.7	4.8	1.2
3. Time	8-12:59	231	1.5	5.3	1.5	5.6	1.4
Of	1-3:29	165	2.3	5.5	2.1	5.3	1.4
Day	After 3:30	163	1.8	5.8	1.5	5.4	1.5
Overall			1.8	5.5	1.5	5.4	1.5

* Scale values from 0 to 8
** Scale values from −4 to +4
† P ≤ 0.01 using Median Test

could be due to females presenting more problems of living.

Social class of patients emerges as a moderately strong determinant for feelings evoked. In particular, the physicians reported less interest, more frustration, and less satisfaction at the end of the interviews when they were dealing with lower social class patients, but the trend was consistent for all emotions studied except comfort. This cannot be explained away by lower social class patients being more likely to be seen by junior residents, as it was shown that the probability of seeing lower social class patients is practically the same for junior residents as for the more senior physicians. Nor can the findings for lower social-class patients be explained away by their being more likely to present with psychosocial problems, as in this study they were shown to present with a problem content similar to that of the other social classes (Table 6). The finding that lower social class patients do not present with more psychosocial problems than do other patients could be due to the reported "concreteness" of the poor, ie, their greater likelihood of presenting with organic complaints as an expression of their problems of living.[11]

The sex, level of training, and social background of the physicians were all found to have an effect on the emotional responses. Physicians who were females, junior residents, or of lower social class background reported higher anxiety and frustration, less comfort, and less satisfactory "end note." The small number of physicians who were female and of middle and lower social class backgrounds limits the value of these findings. As for level of training, the trends seen are universal and consistent for each of the emotions studied. Some of the effects of physician characteristics may be explained by a difference in personality traits which were not a part of this study. Lorion found that personality traits of physicians were more significant in determining the outcome of psychiatric therapy than was their experience level or therapeutic approach.[4] Self-awareness and personality traits would seem to be important in determining how people record their emotional responses. It was a subjective finding of the author that the more "defensive" physicians tended to report with less variability and far fewer "negative" responses than did the more "open" physicians. Differences between the individual teaching practices had an effect on the emotions recorded.

Table 5. Levels of Training and Type of Problem			
	Organic	Mixed	Psychosocial
Resident I	(129) 66.5%	(41) 21.1%	(24) 12.4%
Resident II	(175) 79.2%	(24) 10.8%	(22) 10%
Resident III	(46) 66.6%	(15) 21.8%	(8) 11.6%
Staff	(44) 58.7%	(19) 25.3%	(12) 16%
Totals	(394) 70.5%	(99) 17.7%	(66) 11.8%

| Table 6. Patients' Social Class (SC) and Type of Problem			
	Organic	Mixed	Psychosocial
SC I	(33) 66%	(10) 20%	(7) 14%
SC II	(126) 73.7%	(26) 15.2%	(19) 11.1%
SC III	(235) 69.5%	(63) 18.6%	(40) 11.8%
Total	(394) 70.5%	(99) 17.7%	(66) 11.8%

Physicians on one practice were more likely to report a variety of responses and more "negative" responses than physicians on another practice, and the trends were consistent for all of the emotions studied.

New problems tend to generate more anxiety than those of a continuing nature. This could be expected from a physician dealing with a particular problem in a particular patient for the first time. Dealing with a continuing problem that does not resolve is likely to produce frustration and this is borne out by the findings.

The finding that early afternoon contacts evoke more "negative" responses than other parts of the day was unexpected. However, Byrne and Long found that shorter instructions to patients are more likely to be associated with late morning and early evening office hours.[7] If "shorter instruction" could be said to be associated with "negative" responses, then the findings of this study would seem to point in the same direction.

Problem content is a strong determinant for the emotional responses, the consistency of the trends supporting the validity of these findings. Psychosocial problems are associated with more anxiety and frustration, less comfort, and a less satisfactory "end note," but at the same time interest for this type of problem is higher than for the other problem categories. Problem characteristics are not influenced by the physician personality traits previously mentioned, as any such bias would apply equally to all patient contacts. However, it is obvious that determination of problem content by a third party is open to criticism, as diagnostic labels can never reliably reflect the real content of the interview. In order to eliminate the bias introduced by this third party, it would be preferable to have the physicians themselves determine whether the problems they were dealing with were mainly organic, mixed, or mainly psychosocial.

The emotions chosen for the study could be disputed. It seems to the author that the specific

Figure 2. Median Frustration Values for Each End Note Result
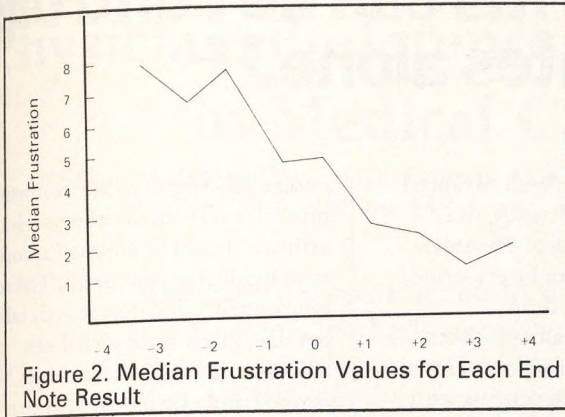
family medicine with those going into practice after a rotating internship. Discomfort in dealing with lower social class patients and with psychosocial problems emphasizes the need for more exposure to both in medical school. This discomfort could perhaps also be lessened by more training in basic sociological and psychological theory. Before these results can be generalized more studies need to be done in this area, involving more patient contacts and more physicians over longer periods of time.

emotion is not of great significance. Any emotional response would have been useful in determining the effect of patient, problem, and physician characteristics. However, emotions such as anger and sexual arousal would be impractical as the stigma attached to such feelings would probably preclude truthful reporting. To study the effects of the physicians' personality traits on his/her emotional responses, a concurrent appraisal from the patients of those traits would have been helpful.

Of the multitude of factors that probably influence emotional responses in office interviews, only a very few were dealt with in this study. During the study period the following two factors surfaced as additional important determinants: Is the physician seeing this patient for the first time? and, Did the physician anticipate this problem or was the patient assumed to be coming in for something totally different? Seeing a patient for the first time seemed to generate more anxiety and less comfort, whereas a physician dealing with an unanticipated problem seemed to report higher frustration and a less satisfactory "end note."

The findings of this study have implications mainly in the area of teaching. An increase in comfort and satisfaction and a decrease in negative emotions is related in this study to training level. This needs to be substantiated by comparing physicians going through a graduate program in

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