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Pain in General Practice

Pain as a Cause of Patient–Doctor Contact

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In 1983 26 general practitioners in a Danish provincial town made a week's survey of pain as the main cause of patient–doctor contact during the day time. The population served was 45 000–50 000 persons of all ages. Coexistent pain which was not the cause of actual contact was not recorded. Out of 2 886 contacts of all causes 641 were due to pain (22 % or 222/1 000 contacts). Percentages for acute and chronic pain were 61 and 39 respectively. The commonest causes of pain were musculo-skeletal (50 %), visceral including cardio-vascular (20 %), infectious (15 %), and headaches (8 %). The overall female : male ratio was 1.5 : 1, but with considerable variation within the different pain categories. The ratios for acute and chronic pain were 1.4 : 1 and 1.8 : 1 respectively. About one hundred contacts were recorded as "problem cases" whose predominant complaints were low back pain, headaches, and visceral pain. Pain—especially chronic pain with a non-malignant cause—is a major problem in general practice. Essentially, pain is a primary health care problem and research in this field should be encouraged.

Key words: pain, general practice.

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Pain is probably one of the most frequent causes of patient–doctor contact in general practice. The size of the problem is however unknown. In order to elucidate at least part of the problem GPs in Roskilde, a provincial town 30 km west of Copenhagen made a one-week survey in 1983. The aim was to substitute personal impressions with at least some knowledge concerning the proportion of contacts caused by pain of any kind, the distribution of acute and chronic pain, and the pain pattern.

MATERIAL AND METHOD

Twenty-six GPs out of 33 (79%) took part in the survey during an ordinary week in April 1983. The population served was 45 000–50 000 persons of all ages.

Only personal contacts where pain was the presenting (iatrotropic) complaint were recorded on separate sheets at each contact. Possibly coexisting non-iatrotropic pain was not recorded. Telephone contacts and repeat prescriptions for analgesics were excluded. Thus, only patients seen in the surgery (office) or on home calls were included. Only day contacts from 08.00 a.m.–04.00 p.m. Monday to Friday were recorded. Pain patient data were transferred to standard punch cards and analysed manually.

We define chronic pain as either pain persisting for at least three months or frequent exacerbations of an essentially chronic condition, for instance severe migraine. It should be stressed that chronic means "continual, lasting for a long time" (1) but not intractable. Problem patients were those whose pain problem was considered unsolved and perhaps unsolvable.

RESULTS

The total number of contacts was 2 886 seen during 128 working days (24 GPs recorded for five days, two for four days). The number of pain contacts recorded was 641 (22%–95% confidence interval 19–24) or 222/1 000 contacts. Some of the contributing practices were single handed, others partnerships of three or four. The relative number of pain contacts per week varied considerably from prac-

Table I. *Pain contacts related to age, sex, and acute/chronic pain irrespective of sex*

Age (yrs)	Number	Per cent	Female: male ratio	Acute/ chronic (%)
0–15	58	9	1.2:1	91/9
16–40	243	38	1.4:1	74/26
41–65	221	34.5	1.7:1	55/45
>65	119	18.5	1.7:1	34/66
Total	641	100	1.5:1	61/39

tice to practice (range 9–44%, median 20.5%, inter quartile range 11–30%).

The 641 pain contacts represented 611 persons, 18 of whom attended two to four times. There were 372 female and 241 male contacts; 28 sheets did not record sex. The female: male ratio was 1.5:1 and assuming the same ratio for the remaining 28 there were 389 female (61%) and 252 male contacts (39%). The distribution of pain according to age, sex and acute/chronic pain (irrespective of sex) is shown in Table I. The distribution according to sex and acute/chronic pain is presented in Table II. There were 136 acute and 86 chronic cases per 1 000 contacts. The female: male ratio was 1.4:1 in acute and 1.8:1 in chronic conditions. Thus females accounted for 58% of acute and 64% of chronic pain.

Table III shows the frequency within the major pain categories. From the total of 706 it appears that some of the 641 contacts had more than one complaint. Pain related to acute *infectious disease* was seen in 109 cases of earache, sore throat etc. A third of the 56 *headaches* were migraines, half of them tension headaches, and the remainder unclassified. The female: male ratios were 8:1, 1.6:1, and 3.5:1 respectively. The overall female: male ratio was 2.7:1. Fifteen of 18 migraine contacts, 17 of 29 tension headaches, and 3 of 9 other headaches were labelled chronic. Out of 356 cases of pain from the musculo-skeletal system 326 (92%) allowed further analysis, as seen in Table III. *Visceral pain* from the genito-urinary tract was mainly a female complaint, 29 out of 36 (86%). More than two thirds of all cases (72%) were considered chronic. Concerning *gastro-intestinal pain* there was little difference between sexes, 36 females, 29 males and four unclassified. The age groups 16–40, 41–65, and >65 had 19–23 cases each. Pain from the *cardiovascular system* was the only clinically important category with a male predominance which, however, might well be due to chance. There were 21 males versus 16 females and two unclassified. Few *injuries* were seen, probably because of the local hospital's open casualty department. Thirteen of 22 cases were males, and 17 cases were in the age groups 16–65. Ten cases of *neuralgia* were met, seven being females >41 years.

A total of 108 problem patients (37/1 000 contacts) comprised 20% headaches and 65% pain from the musculo-skeletal system, mainly low back pain. Most of the remainder were visceral pain. The majority of problem cases were in the age groups 41–65 (51) and >65 (34). All cases were chronic with a female: male ratio of 2.7:1. Only two patients suffered from cancer pain.

Treatment

A total of 655 "treatment events" were recorded. Reassurance alone numbered 142 cases (22%). Non-drug treatment (e.g. acupuncture, transcutaneous electric nerve stimulation (TENS), local heat/cold, bed rest or bandage) was prescribed 41 times (6%).

Drug treatment with weak analgesics and local anesthetics, "blocks" with lignocaine and analogues with or without corticosteroids, were employed 133 (20%) and 113 (17%) times. Non-steroid antiinflammatory drugs (NSAID) were prescribed in 80 (12%) cases. Psychoactive drugs (benzodiazepines, neuroleptics, and polycyclic antidepressives) were used 22 times (3%), and strong analgesics 45 times (7%). It should be stressed that the majority of these treatment events were injections in cases of acute pain. All other drugs (e.g. glyceryl nitrate, ergotamine, propranolol, karbamazepine, and anti-

Table II. *Pain contacts related to sex and acute/ chronic pain*

Sex	No. of contacts	Duration of pain	
		Acute	Chronic
Female	389 (61%)	229 (58%)	159 (64%)
Male	252 (39%)	164 (42%)	89 (36%)
Total	641 (100%)	393 (61%)	248 (39%)
Female: male ratio	1.5:1	1.4:1	1.8:1

Table III. *Number of complaints related to pain category, age, sex, and acute/chronic condition*

Pain category	No. of complaints	Per cent	No. per 1 000 contacts	Predominant age (yrs)	Female : male ratio	Acute/ chronic (%)
Infectious disease	109	15.5	38	<41 (52%)	1 : 1	100/
Headache	56	8	19	16–65 (87%)	2.7 : 1	37/63
Musculoskeletal	356	50.5	123			
(*a*) Muscle/ligament	145	45	50	16–65 (78%)	1.6 : 1	66/34
(*b*) Bone/joint	105	32	36	41–65 (74%)	1.8 : 1	33/67
(*c*) Low back	76	21	26	16–65 (82%)	1.8 : 1	50/50
Visceral	144	20	50		1.5 : 1	41/59
(*a*) Genito-urinary	36	25	12	16–65 (81%)	4.1 : 1	28/72
(*b*) Gastro-intestinal	69	48	24	16–>65 (91%)	1.2 : 1	55/45
(*c*) Cardiovascular	39	27	14	>41	1 : 1.3	28/72
Injuries	22	3	8		1 : 1.4	100/
Neuralgia	10	1.5	3	>41	2.3 : 1	/100
Miscellaneous	9	1.5	3			
	706	100%				

spasmodics) were prescribed in 79 cases (12%). On specific indication they alleviate pain even if they are not analgesics.

Referrals

Only 88 cases (14%) were referred to others, namely 32 to physiotherapists for evaluation and treatment, 28 to various specialists for a second opinion, and 28 to the local X-ray or laboratory service for paraclinical investigation. The female : male ratio for referrals was 1.5 : 1.

DISCUSSION

Pain is primarily treated in general practice, yet nearly all medical literature originates from specialized hospital units, whose clientele and experience must be atypical to the problem in the population. So our sum of knowledge about pain, qualitatively as well as quantitatively, is largely derived from samples, grossly unrepresentative of general practice. We have found only a few examples where this problem has attracted interest in general practice.

In 1967 Baker (GP) and Merskey (psychiatrist) published a report on pain in a rural general practice (2). Of 276 patients seen, 176 (64%) had pain. Females were significantly more often affected than males. Pain in the head involved 30% of those with pain. They conclude that "pain should never be diagnosed as psychogenic solely by the exclusion of organic disease; there should also be valid evidence of psychiatric illness".

Canadian researchers (3) made a postal survey of 372 families on the list of four general practices. Thirty-six per cent had one or more family members >18 years with a pain complaint within the previous two weeks. Of 827 individuals 14% recorded a persistent and five per cent a temporary pain problem. The female : male ratio/1 000 population was 1.25 and 2.4 : 1 for persistent and temporary pain. Musculo-skeletal, headache, and abdominal problems accounted for 86% and 70% of complaints in the persistent and temporary groups.

In 1981/82 the approximate consultation rate in an English general practice was 320 consultations with pain/1 000 consultations. Some definable cause was apparent in 80% of cases (John Fry: personal communication, 1982).

From a study of prescribing patterns in general practice in Roskilde 1975/76 it emerged that about 20% of 17 000–18 000 prescriptions were analgesics including NSAID (4).

Our figures reflect iatrogenic pain only, neglecting non-iatrogenic pain (numerator), and all calculations are based on a denominator made up of persons who actually saw their doctor for whatever (iatrogenic) reason. In a limited sense this is a study of pain period prevalence in a defined population, but it should be noted that a study of pain preva-

lence proper requires a different kind of investigation according to accepted epidemiological principles. Thus, our results are minimum figures concerning the pain problem in a population. Nevertheless they leave no doubt that pain is a considerable problem in general practice.

Statistically, our population is not fully representative of Denmark as a whole. For example, in the county of Roskilde 75% of the population are below 50 years, whereas the corresponding figure for the whole country is 70%. In the country the number of females exceeds the number of males from the age of 50; in Roskilde county female predominance only begins at 60 years (5). Theoretically, such differences are interesting. However, they may be unimportant. Yet, even if too much cannot be deduced from our results, either in this country or elsewhere, we believe that they show some trends. So far, it is the only study of its kind, and similar studies should be performed.

It is essential to distinguish between acute and chronic pain. Acute pain is a useful symptom, and we are reasonably good at handling it; moreover it is self-limiting. Chronic pain, however, is different, and a considerable medical problem which may develop into incapacitating illness per se, an algopathia (6). It is noteworthy that nearly 40% of pain contacts were labelled chronic. Most problem cases had pain from the musculo-skeletal system, headaches, or visceral pain including cardio-vascular. There were only two patients with terminal cancer pain, probably because most cancer patients spend their terminal weeks/months in hospital.

The majority of pain sufferers were women. This was true for overall attendance, acute and chronic pain, and almost all the various pain categories. Only cardio-vascular pain (and injuries) had a slight male preponderance.

The cause of the marked sex difference is a matter of speculation. Perhaps females are especially prone to pain; perhaps women are more used to seeing their doctor with all kinds of trouble—to mention just two possibilities. However, an interpretation of the obvious difference lies beyond the scope of this study. The fact that women outnumber men from the age of sixty might offer an at least partial explanation concerning the age group >65 years.

It is well known that our diagnostic and therapeutic approach to pain, especially chronic pain with a non-malignant background, leaves much to be desired. We feel that contemporary teaching on pain is inadequate to meet the needs and demands of both the individual and society. Pain is essentially a primary health care concern, so further research on the rich variety of pain problems in general practice is needed.

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