A multiprofessional study of patients with myofascial pain-dysfunction syndrome. II

BERIT HELÖE & ASTRID NÖKLEBYE HEIBERG

University of Oslo, Blindern, Oslo, Norway

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One hundred and thirteen female patients with myofascial pain-dysfunction (MPD) syndrome were examined by a dentist and a psychiatrist. One hundred and eight of them were also examined by physiotherapists. Particular emphasis was given by the dentist to the types and duration of the chief complaints, the perceived severity of the MPD-symptoms and to the kinds of statements used in the anamnestic reports.

Additionally the patients' perceived cause/origin of their symptoms, expectations regarding treatment, reactions to the different types of examination procedures and their reports of perceived daily life stress factors were taken into account. The patients were categorized according to the findings, and the results were compared to the psychiatrist's findings. Some basic clinical patterns were revealed. The results indicate that reports of oral symptoms may have symbolic value.

It is concluded that a carefully performed clinical interview may provide the dentist valuable information useful in diagnosis and the choice of treatment.

Key-words: Subgroups: clinical appearance; behavioural patterns

Berit Helöe, Institute of Community Dentistry, Dental Faculty, Blindern, Oslo 3, Norway

Recent research on myofascial pain-dysfunction (MPD) syndrome has provided information which indicates that

a) MPD is a set of symtoms representing multifactorial etiology (6, 13, 14, 24),
b) MPD-patient materials are heterogeneous regarding personality traits (5, 18, 20),
c) masticatory muscle hyperactivity and dysfunction are originated in the central nervous system (28),
d) personality build-up is important with regard to treatment response (3, 5, 22, 26, 27),
e) MPD-patients are generally not motivated for psychotherapy (17), and that
f) diagnosis of the MPD syndrome should be based on diagnostic methods other than physical, dental examination (2).

In a previous paper a group of 113 female MPD-patients was described and analyzed according to dental, psychiatric and physiotherapeutic characteristics (10). The psychiatrist's basic screening criterion was the patients ability to form stable interpersonal relationships (i.e. «capacity for interpersonal contact», abbreviated to CIC) (7, 10). The main physiotherapeutic findings agreed well with

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those of the psychiatrist (10). However, the dentist's findings using a common dental examination procedure (8), did not distinguish between patients with a good and patients with a disturbed CIC. Subconscious needs for seeking treatment must, however, be considered of utmost clinical and therapeutic importance. The purpose of the present paper was to introduce a system of uncommon dental examination procedures and relate findings to the psychiatrist's assessments. An overall objective was to improve diagnostic procedures and treatment strategy.

MATERIAL AND METHODS

One hundred and thirteen female MPD-patients were examined by a dentist and a psychiatrist (10). An arbitrarily selected half of the patients were examined by a physiotherapist specially educated in cooperation with psychiatrists (7), while the rest of the patients except for five, were examined by a physiotherapist with a basic physiotherapeutic education. Thus, altogether 108 patients participated in the multiprofessional study. The basic dental examination procedure is previously described (10). In addition, this study also included the following seven socio-dental topics:

History of oral symptoms

Firstly, the patients were encouraged to tell their story in their own words. Secondly, they were asked whether they had perceived any of the following symptoms:

a) Clicking from the TMJs,
b) limitation of mandibular mobility,
c) fear of dislocating the jaw,
d) fatigue of masticatory muscles,
e) mild pain on function,
f) strong pain only on function or aggravated on function
g) constant, dull ache, or
h) feeling of occlusal («bite») instability.

They were also asked about the duration of symptoms and which sort of function hurt the most (e.g. chewing, bitting, yawning, laughing, resting). Reported pain was compared to palpative findings (number of painful muscle groups).

Oral habits

All patients were questioned about oral habits, i.e. smoking, alcohol consumption, drug-taking, use of chewing gum and snacks, nail-biting, eating habits, tooth-brushing and possible problems at dental visits (e.g. fear, restriction of jaw mobility).

Opinions concerning cause of symptoms

The patients were asked about their opinion of the cause of their symptoms. The answers were grouped into one of three broad categories:

a) Own behaviour (e.g. «I may have been lying/chewing/biting/sneezing in a wrong way», «I expose myself to cold too much», «I keep making myself tense»).
b) Somatic disorder or structural failure (e.g. «My bite must be wrong», «It is a family weekness», «Maybe I'm ill, perhaps something in my head», «My upper jaw doesn't fit the lower»).
c) Traumas caused by other people or iatrogenic mistakes (e.g. «My husband hit me», «My dentist has treated me badly», «The doctors overlooked my symptoms, did not treat me adequately in time»).

Wishes and expectations regarding treatment

The patients were asked what kind of treatment advice they expected to get at the clinic. The ansvars were categorized as follows,

a) None particularly/Don't know
b) Dental treatment/Correction of bite
c) Surgical intervention

Adjectives used to describe oral discomfort

The interviews on history on oral symptoms were recorded using a tape recorder. The records were thoroughly examined to find the two adjectives each patient used most frequently to describe her oral discomfort.

Perceived daily life stress described to the dentist

The patients were asked whether they felt daily life stress, and if so, of what kind. The answers were grouped into the previously described categories (10),

a) Pressed working situation
b) Problems in family/married life
c) Responsibility for diseased relatives
d) Poor economy

Reactions to non-dental examinations

After the total examination was over, the dentist interviewed the patients to discover their reaction to the non-dental examination approaches. The answers were categorized as follows,

a) Positive (e.g. the patient said it had been useful to her, appreciated that all of her, not merely the teeth, had been examined)
b) Indifferent (e.g. the patient shrugged her shoulders, did not know for sure, or suggested that her main profit from it had been to get a day off from work)
c) Negative (e.g. the patient expressed that it had been embarassing, improperly inquisitive, fussing or not the least like what she had imagined about Science)

All findings were related to the psychiatrist's categorization of the patients according to assessed capacity for interpersonal contact (CIC).

Table 1. *Study group according to age and psychiatric assessment of capacity for interpersonal contact (CIC) expressed as percentages*

Age in yrs.	Apparently good CIC (n = 44)	Mildly disturbed CIC (n = 42)	Severely disturbed CIC (n = 27)
18 - 19	11	2	0
20 - 29	45	36	19
30 - 39	16	29	26
40 - 49	18	17	26
50 - 59	5	17	26
60+	5	0	3
	100	101	100

The distribution of the study group according to age and degree of disturbance of CIC is given in Table 1.

Statistical evaluation

Differences in findings between the CIC subgroups were evaluated by means of the chi-square test.

RESULTS

History of oral symptoms

Fig. 1 shows the distribution of chief complaints and of other perceived MPD-symptoms. The patients with a sev-

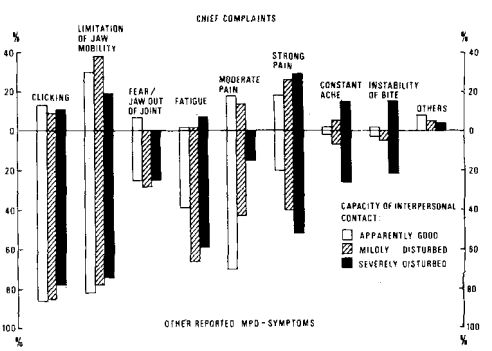

Fig. 1. Percentage of patients with various degrees of capacity for interpersonal contact (CIC) according to their chief complaint and other reported symptoms.

erely disturbed CIC reported strong or constant pain and a feeling of having and unstable occlusion more often than others. The patients who were found to have an apparently good or mildly disturbed CIC, were the most likely to report restriction of mandibular mobility and moderate or strong pain on function. The subjects with a severly disturbed CIC tended to report almost all possible symptoms with the exception of mild pain. The subjects with an apparently good or mildly disturbed CIC seemed to be those who gave the most accurate reports, or who underreported their symptoms.

The psychiatrist found that all except one of the patients reporting fear of dislocating the jaw were in an emotionally difficult life situation, feeling they were on the point of loosing emotional control. Their symptom description contained statements like «I feel I would be thrown off the rails if I open my mouth as much as I want to», or «I'm afraid something disastrous might happen if I open my mouth wide, – it wasn't like that before». The patients reporting occlusal instability were as a rule categorized as having a severely disturbed CIC. Examples of their statements were, «I feel I have nowhere to rest» (the patient pointing to her mandible), and «I feel homeless in my own mouth».

The palpative findings corresponded most often to reports of pain. Those who reported severe pain regularly had several muscle groups painful to palpation (Fig. 2).

No difference was found between the CIC subgroups in the duration of symptoms, or between the CIC subgroups in type of painful experience on function. However, a few reports were noteworthy, «I never feel this jaw limitation except when staying in my childhood home, and of course at dental visits», «It hurts when I chew and laugh loudly, it's strange that yawning never hurts.»

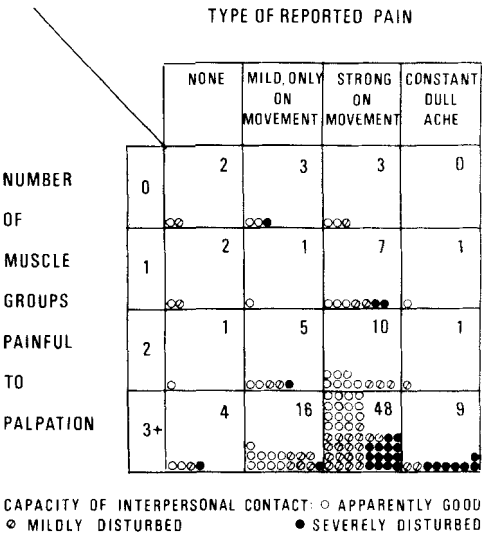

Fig. 2. Relationship between the number of muscle groups painful to palpation and the types of reported pain. Each plot denotes one individual belonging to one of the subgroups derived according to assessed capacity for interpersonal contact (CIC).

Oral habits

No significant differences were found in oral habits between the CIC subgroups, although one patient found to have a severely disturbed CIC claimed that she brushed her teeth at least fourteen times a day. All the patients claimed to be teetotallers or moderate consumers of alcohol. All said they avoided taking drugs as far as possible. Five per cent indicated perceived fear at dental visits and 29 per cent reported problems with mandibular mobility at dental visits. These reports were equally distributed in the CIC subgroups.

Opinions concerning cause of symptoms

Table 2 reviews the distribution of answers according to the CIC subgroups. Two-thirds out of those with an apparently good CIC believed that their symptoms were somatically originated. A higher proportion of those with a mildly

Table 2. *Opinions concerning the cause of symptoms according to psychiatric assessment of capacity for interpersonal contact (CIC) expressed as percentages*

Opinions of symptoms' cause	Apparently good CIC (n = 44)	Mildly disturbed CIC (n = 42)	Severely disturbed CIC (n = 27)
Own behaviour	27	45	33
Somatic disord./ Struct. failure	68	50	33
Trauma caused by other people	5	5	33
	100	100	99

$X^2 = 20, 64$, DF = 4, $p < .001$

Table 3. *Wishes and expectations regarding treatment according to psychiatric assessment of capacity for interpersonal contact (CIC) expressed as percentages*

Expectations regarding treatment	Apparently good CIC (n = 44)	Mildly disturbed CIC (n = 42)	Severely disturbed CIC (n = 27)
None particularly, Don't know	41	40	37
Dental treatment	59	52	37
Surgical treatment	0	7	26
	100	99	100

$X^2 = 14,03$, DF = 4, $p < .01$

disturbed CIC than of the other CIC subgroups believed that the trouble derived from their own behaviour, while a relatively large proportion (one third) of those with a severely disturbed CIC put the blame on other people.

Wishes and expections regarding treatment

It was noted that a high proportion of the patients with a severely disturbed CIC wanted and/or expected surgical treatment (Table 3).

Adjectives used to describe oral discomfort

Most of the patients with an apparently good CIC used combinations of adjectives covering all selected possibilities (Fig. 3). Those with a mildly disturbed CIC mainly described their discomfort as painful or painful in combination with weariness and fatigue. Those with a severely disturbed CIC tended to use dramatic descriptions like painful all over, radiating, carving, lancinating pain together with expressions indicating mechanical perceptions like deranged, displaced, locked up (Fig. 3).

Stress reports

About half of the patients reported perceived stress factors to the dentist, while

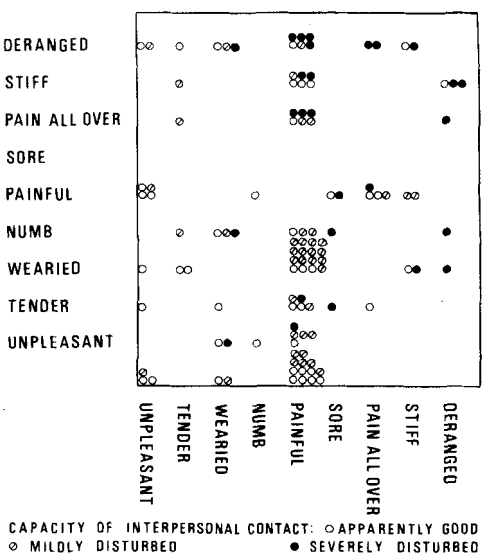

Fig. 3. Relationship between the first and the second adjective used to describe the oral discomfort. Headword «deranged» covers discharged, displaced, loosened, obstructed, «stiff» covers wooden, decrepit, incontrollable and «pain all over» covers gnawing, pressing, harassing, aching pain all over. Each plot denotes one individual belonging to one of the subgroups derived according to assessed capacity for interpersonal contact (CIC).

the others denied being stressed. A third of those with an apparently good CIC, half of those with a mildly disturbed CIC and threequarters of those with a severely disturbed CIC reported stress factors.
A marked difference was found between the reports given by those with an apparently good and those with a mildly disturbed CIC on the one hand and those with a severely disturbed CIC on the other. Those of the latter group who reported stress factors, told of several stressing conditions in daily life, economy and family life included. Those with an apparently good or midly disturbed CIC, who mentioned stress factors at all, regularly told of stress related to working situation, their stories often implying a sense of their own insufficiency. Fifteen per cent out of these groups told of problems with diseased relatives. Congenital disorders of children, cancer, coronary infarctions, diabetes etc. of spouses or parents were the types of diseases most frequently mentioned. Alcoholism and/or mental disorders in the family were problems mentioned to the dentist by only five subjects in these groups. Economic problems in connection with a new dwelling were mentioned by two subjects, problems in connection with inheritance by two.

Compared to the psychiatrist's assessments of the family situations, there was a substantial underreporting of family stress by the subjects with an apparently good or mildly disturbed CIC, while the heavy reports given by the patients with a severely disturbed CIC were of a complex, clustering nature.

Reaction to non-dental examinations

Generally a greater proportion of the patients were positive to the physiotherapeutic examination than to the psychiatric. More of the patients with a severely disturbed CIC than of the other patients expressed disapproval of both types of examination (Table 4).

Table 4. *Reactions to non-dental examinations according to psychiatric assessments of capacity for interpersonal contact (CIC) expressed as percentages*

	Reactions to psychiatric examination			Reactions to physiotherapetic exam.		
	Apparently good CIC (n = 44)	Mildly disturb. CIC (n = 42)	Severely disturb. CIC (n = 27)	Apparently good CIC (n = 41)	Mildly disturb. CIC (n = 41)	Severely disturb CIC (n = 26)
Positive	25	36	37	61	59	42
Indifferent	64	55	30	37	39	42
Negative	11	10	33	2	2	15

Table 5. *Prototypal symptoms and characteristics according to assessed capacity for interpersonal contact (CIC)*

Assessed CIC / Type of characteristics	Apparently good CIC	Mildly disturbed CIC	Severely disturbed CIC
Chief complaint	Limitation, moderate/ strong, pain on function clicking	Limitation, strong pain on function	Pains (strong/constant) Feeling of having an unstable occlusion
Additional symptoms reported	Fatigue of masticatory muscles, fear of dislocating the jaw clicking	Fatigue of masticatory muscles, fear of dislocating the jaw, clicking	All symptoms included in MPD, often mixed up with bizarre symptom descriptions

(cont.)

(cont. table 5)

Assessed CIC / Type of characteristics	Apparently good CIC	Mildly disturbed CIC	Severely disturbed CIC
Manner of describing symptoms	Consistent description. Bland face, controlled voice, reports reluctantly	Consistent description. Tries to keep control. Often trembling lips, tears visible; combined with a vivid symptom history	Inconsistent description. Does not stop talking
Perceived cause of symptoms	Any somatic disorder	Somatic disorder and/or own behaviour	Varying, mainly a somatic disorder caused by other persons
Expectations towards treatment	Don't know, may be dental treatment	Explanation of what is wrong, dental treatment	Varying, surgical treatment may be wanted
Stress reports to dentist	Denies being stressed at all, or reports reluctantly some stress	Reports perceived stress factors related to work or non-stigmatizing family disease	Reports freely to anybody supposed to listen, or is withdrawn, insinuating inquisitiveness
Duration of symptoms	Varying from 1 month to several years	Varying from 1 month to several years	Varying from 1 month to several years
Anamnestic index	High scores	High scores	High scores
Occlusal index	Moderate scores	Moderate scores	Moderate scores
Dysfunction index	High scores due to equal distribution of the D_i factors	High scores due to equal distribution of the D_i factors	High scores mainly due to masticatory muscles painful to palpation
Age	All beyond puberty	All beyond puberty	Alle beyond puberty
Social relationships	Socially stable. Typical feminine, subordinate jobs. Has got or is about to have an education. Middle class mainly		More unstable in relation to family, education, jobs. Single status or divorces in social history. Disablement pensioneers or self-employees more frequently found than in the other groups. Middle class mainly, however, variation
Attitudes towards health care system	Sees dentist regularly for prevention. Believes in specialists, does not see them needlessly. Mainly somatically oriented, reserved towards psychiatry		Has adapted or is about to adapt a sick role behaviour, sees several specialists, also inorthodox health caretakers
Self image	Sees herself as a normal woman	Sees herself as a normal, calm and quiet woman, to a certain degree managing,but ought to be better	Sees herself as a person haunted by difficulties, unkind family and/or a bad fate

DISCUSSION

The concept of CIC (7, 10) was used by the psychiatrist as a basic screening criterion because it was considered the most relevant in therapeutic contexts. Care should, however, be taken regarding the data without including her own nuances (7). In particular, among the youngest patients, who were mainly assessed as having an apparently good CIC, precautions had been taken not to overdiagnose disturbed conditions. Nevertheless, some interesting trends appeared when the interview data were split up by CIC assessments. It seems unlikely that inconsistency in the assessments made any great impact upon the results of the present study.

Symbolic statements

When the histories of oral symptoms were analyzed in detail, it appeared that several of the reports were charged with symbolic values. This seemed particularly true for subjective symptoms expressing fear of having the jaw dislocated and a feeling of having an unstable bite – «nowhere to rest». But other types were also noted. One woman, a widow since the previous year and with a boisterous, imbecilic child of nine, pointed to her jaw and said, «There is a numbing pain here, and I feel worn out. I have to pull myself together to do the most simple things, even eat». The psychiatrist had diagnosed her at acutely depressive. The problems of bereavement and depression (12, 16, 21) seem to have severely affected the somatic complaints of this patient. One disablement pensioneer aged 54 (pensioned because of «nervous disorder»), said she felt «discharged and obstructed», pointing to her teeth. The psychiatrist's diagnosis was pseudoneurotic/borderline. The concept of dysmorphophobia/dysodontophobia (19), may be related to some of the severely disturbed patients symptom reports, a relationship which should be further studied.

Subgroups according to assessed capacity for interpersonal contact (CIC)

In a previous study a subgroup of patients was designated «hypernormals» (26). According to its definition this term fitted the «apparently good CIC» and the «mildly disturbed CIC» subgroups in the present study well, particularly those who believed that their symptoms derived from some somatic disorder. However, they were more likely to report «objective» symptoms than were those studied by Greene and Laskin (4). The need to hide emotional conflicts (25) agrees well with a somatizing of disorders (1). This finding thus seems reasonable.

The distinction between «typical MPD-patients» and «multiproblem patients» (9,11) proved to be in essence identical with the present distinction between those with an apparently good or mildly disturbed CIC, and, on the other hand, those with a severely disturbed CIC. However, a higher proportion of the group presently studied was found to have a severely disturbed CIC than the «multiproblem» proportion of the previous study (11). The difference was made up by patients characterized by a withdrawn, hostile attitude and a tendency to blame other people for their trouble. This group with a severely disturbed CIC corresponded well to «psychoneurotics» (26).

The hysteriform, or even bizarre terms used by several of those with an apparently good CIC (Fig. 3), may be interpreted in different ways. Possibly, the us of such adjectives may reflect a somatic orientation: They look at their body in a distanced and technical way, – when something goes wrong in it, this part should be repaired by a specialist. Another explanation may be that the use of these adjectives is an early sign of a severe psychological disturbance (19).

The patients found to have a mildly disturbed CIC and restrained aggression, usually believed that their symptoms

were caused by their own behaviour («my bad habits»). This is probably due to a constant feeling of guilt which accompanies their emotional restriction.

Among the patients with a severely disturbed CIC, the demand for surgical treatment may be a perverted wish for punishment (12). Constant ache and seeking to find a resting place for the jaw call upon pity or irritation. However, the condition also provides a good excuse for withdrawal and avoidance of unpleasant confrontations. Furthermore, a surgical procedure also means a passive receipt of treatment followed by a recovery period in the care of professionals. People with gross interpersonal contact disturbances are likely to seek pseudocontact relationships which do not represent menacing obligations (23). The irrational behaviour is probably subconsciously guided and might be a symbol for a general pain and homelessness. The symptoms are the messages in their communicative process. They cannot afford to loose them, since most of the psychologically severely disturbed patients are unable to get out of their psychological condition.

As a rule the dental practitioner should avoid irreversible treatment of these patients. Their complex problems may at best be treated by specialists, or on a multiprofessional basis. It is also recommended that two more symptoms, namely 1) fear of dislocating the jaw and 2) feeling of occlusal («bite») instability, be added to the standard list (14) of MPD-symptoms. The wider the clinician's understanding of subjective symptoms, the better the doctor/patient rapport (15), a factor which is of great importance in the planning of treatment strategy.

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