

# ANXIETY AND DEPRESSION IN SURGICAL PATIENTS: A CLINICAL REPORT FROM AN ITALIAN GENERAL HOSPITAL

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## SUMMARY

The authors have examined the reactions of a group of 40 patients (23 women and 17 men) to the emotive state induced by a surgical operation. Above all, the responses concerning anxiety, depression and the setting-up of defense mechanisms of an obsessive-compulsive type have been considered. The hypothesis of a difference in behaviour related to the variable of sex has been formulated. This hypothesis has been checked in the experimental sample and set in relation to the various types of psychological factors activated by the surgical operation.

## RESUMO

### Ansiedade e Depressão em Doentes Cirúrgicos: Estudo Realizado num Hospital Geral Italiano

Procedeu-se ao exame das reacções emocionais de 40 doentes (23 do sexo feminino e 17 do sexo masculino) perante o trauma da cirurgia. Foram consideradas sobretudo as reacções de ansiedade e depressão e os mecanismos de defesa do tipo obsessivo-compulsivo desencadeados. A influência do sexo na reacção psicológica foi tida como hipotética e posteriormente confirmada na amostra em relação aos diversos mecanismos emocionais desencadeados pela intervenção cirúrgica.

## INTRODUCTION

As far as the emotional condition of patients about to undergo surgery is concerned, the whole complex problem of adaptation to the hospital structure has been emphasized on many different occasions.

Therefore an examination of the anxious and depressive elements, in patients undergoing surgical operations, is justified by this ever-increasing attention with which the psychological *quality* of medical treatment is considered.

This also leads to consider a new, more complete and articulated way to build up a relationship with the patient, assessing him as a complex psycho-physical totality, not simply as an anonymous, undifferentiated body, carrying disease. In this direction, the intervention of the psychologist has a particular role, with all the density of his specificity.<sup>1</sup>

An examination of the literature on the subject does not allow us to establish unambiguous criteria concerning the modifications of anxiety and depression in relation to the surgical operation.

One element, however, which seems to be often underlined is, in our opinion, the fundamental role played by personality traits, both in the perception of pain and in the emotive reactions to stress, and therefore in the grade and duration of the post-operative hospitalization.

From this, one may deduce that a surgical operation, in as much as it is an external action affecting the body, mobilizes and activates a series of defense mechanisms that tend to face up to the threatening sensation that it unconsciously implies. All this implies a twofold series of reflections: on the one hand, it seems important to consider how far the patient's sex plays a role in the way in which he lives

through and reacts to a surgical operation, and this is the scope of this research. On the other hand, and this is a possible element for future research in such a field, there is the problem of the evaluation of the quality of the defense mechanisms involved, their possible specificity and their importance for a psychological intervention of *re-education* where necessary.

Our research, as we have mentioned above, will therefore examine the modifications of the anxiety and depressive states in patients undergoing surgery, considering the variable of *sex*. The fact of belonging to one sex or the other should, in fact, point to a different mode of facing the stress-provoking event, unconsciously activating a reality that is linked to the different modes of directing and absorbing the external world, depending on the identity pattern, with the cultural, psychological, social and environmental correlates that are implied.

## MATERIALS AND METHODS

The present study was carried out at the Surgical Department of S. Carlo di Nancy General Hospital of Rome.

The research was based on a sample of 40 subjects, of whom 23 were women and 17 were men. The average age was 45.4 yrs; the average age of the men was 47 and that of the women was 44.2.

Patients were chosen who had to undergo a surgical operation of average importance; they had no former psychiatric history. The average educational level of the patients was low-medium (primary school, high school). The period of hospitalization varied between 12 and 20 days.

As far as the pathology presented and sex are concerned, the sample was divided as shown in Table 1.

TABLE 1 Composition of sample relative to patients' sex and pathology

Pathology	Men	Women	Total
Gastro-duodenal ulcer	5	2	7
Prostatic hypertrophy	2	—	2
Laparocoele	—	2	2
Renal Calculus	4	—	4
Thyroid nodule	—	2	2
Cholecistis calculus	6	17	23
Total	17	23	40

We used two questionnaires to evaluate the modification in anxiety and depressive states. The questionnaires were administered by a female psychologist during the course of an interview, which tended above all to:

- focus on the way in which the patient experienced his operation, what were his expectations about it, what significance the operation assumed for him;
- establish an interpersonal relationship, by means of which the patient might be able to express his fears and problems, it would then be possible to carry out a supportive action, clarifying the fears and giving information about the operation.

To this end the following items were taken into consideration:

- patient's living conditions; work or family problems and their influence on surgery;
- difficulties and emotional problems arising from temporary absence from the family environment, especially for female patients;
- significance of temporary absence from work and associated activities with consequent feeling of loss of social role, especially in male patients;
- importance of previous surgery, patient's overall reactions and characteristics of the course of illness, experiences induced by anaesthesia, especially those in which there was a loss of control over reality;
- quality, degree and characteristics of adaptation to the hospital environment, focalizing on interpersonal relationship established with other patients, doctors, nurses;
- patient's personality structure with particular emphasis on those characteristics which may influence the perception of physical pain;
- degree of emotional support given by the family, feelings of solitude and neglect;
- fantasies related to surgery, common fears and actual knowledge about the particular type of surgery.

The interview usually took place one or two days before the operation, and afterwards the patient was followed up in the ward, so as to keep a certain continuity in the relationship and to carry out an action of emotive support; finally, seven or eight days after the operation, the interviews were repeated, still under the care of the same psychologist,

and in the course of this interview one of two questionnaires was given again.

The questionnaires, chosen because of its simple administration and acceptance from the patients, were:

- Cattell's IPAT A.S. questionnaire,<sup>2</sup> to obtain before the operation a stable measurement of the anxiety, not in connection with the operation, but related to the personality structure of the subject;
- a self-evaluation questionnaire, the Symptom Distress Check List (SCL),<sup>3</sup> comprising 58 items (supposing several groupings, namely: *anxiety, depression, obsessions and compulsions, rage-hostility*) to obtain a scale of variations of anxiety and depression linked to the operation both before and after the operation.

## RESULTS AND DISCUSSION

The average score reached in the above-mentioned questionnaires has been taken into account, evaluating the differences by means of Student's «t» test.

The first collation was carried out on the state of the patient before the operation, paying particular attention to the anxiety-state, measured by means of the A. S. IPAT; the differences between the male and female sub-samples were evaluated (Student's «t» for non-correlated samples). (Table 2).

The second collation was carried out on the evaluation of the anxiety and depression activated by the operation, measured before the operation itself, by means of SCL questionnaire; in this case, too, the differences between the male and female sub-samples were taken into account (Student's «t» for non-correlated samples). (Table 2).

The third collation was made on the grades of anxiety and depression present after the operation, evaluated by means of the SCL, comparing the male sub-sample with the female one (Student's «t» for non-correlated samples). (Table 2).

Finally, the last collation was carried out on the evaluation of the modifications of anxiety and depression in relation to the operation, measured both before and after operation itself, by means of the SCL, separately for the male and the female sub-samples. (Student's «t» for correlated samples). (Table 3).

The levels of significance have been calculated on the basis of a monodirectional hypothesis with  $\alpha = .05$ .

The analysis of the data given in Table 2 shows that in relation to the variables taken into account, particularly as far as anxiety is concerned, the differences between the two sub-groups do not appear to be significant. That means that the degree of anxiety as measured by the A. S. IPAT does not seem to be significantly influenced by the difference in sex: that is, the sample as a whole is substantially homogeneous.

Conversely, still in Table 2 one can see how the degrees of anxiety and depression, activated by the operation reveal significant differences between the two sexes; the women are noticeably more anxious and depressed than the men are before the operation, while the men show a higher degree of obsessive-compulsive factors. After the operation, as far as anxiety and depression are concerned, the differences between the men and the women are not significant (Table 2), but the obsessive-compulsive factors still have a higher value in the male sub-sample.

From a longitudinal comparison, it is clear that men do not show significant modifications as far as anxiety, depres-

TABLE 2 Comparison Men/Women Groups. Before and after the surgical operation.

		Men			Women			t	α	
		$\bar{x}$	s	N	$\bar{x}$	s	N			
BEFORE OPERATION	A.S. IPAT	Latent anxiety	14.76	4.38	17	14.57	4.49	23	0.14	—
		Manifest anxiety	14.18	5.09	17	15.65	6.31	23	— 0.8	—
	SCL	Anxiety	18.35	6.17	17	22.39	5.88	23	— 2.03	0.05
		Depression	18.24	4.07	17	21.30	4.62	23	— 2.17	0.05
		Obsessions and compulsions	11.18	3.80	17	10.83	3.61	23	0.29	—
		Rage-Hostility	5.18	1.88	17	5.04	1.85	23	0.22	—
AFTER OPERATION	SCL	Anxiety	17.65	5.22	17	19.13	6.19	23	— 0.8	—
		Depression	16.71	5.07	17	19.39	5.95	23	— 1.5	—
		Obsessions and compulsions	10.47	3.14	17	9.48	3.30	23	0.94	—
		Rage-Hostility	5.41	2.45	17	4.43	1.59	23	1.4	—

TABLE 3 Comparison before/after the surgical operation. Men and Women Groups.

SCL		Before operation		After operation		N	t	α
		$\bar{x}$	s	$\bar{x}$	s			
MEN	Anxiety	18.35	6.17	17.65	5.22	17	0.67	—
	Depression	18.24	4.07	16.71	5.07	17	1.48	—
	Obsessions and compulsions	11.18	3.80	10.47	3.14	17	1.56	—
	Rage-Hostility	5.18	1.88	5.41	2.45	17	— 0.71	—
WOMEN	Anxiety	22.39	5.88	19.13	6.19	23	2.42	0.05
	Depression	21.30	4.62	19.39	5.95	23	1.93	0.05
	Obsessions and compulsions	10.83	3.61	9.48	3.30	23	2.52	0.01
	Rage-Hostility	5.04	1.85	4.43	1.59	23	1.48	—

sion and obsessions-compulsions are concerned (Table 3), while as far as the women are concerned, the same elements have values that are significantly lower after the operation (Table 3).

Although our sample is not too large, we can state the data have confirmed the hypothesis that the difference of sex has noticeably affected the way in which patients react to hospitalization and surgery.

The presence of certain variables, however, led to a more cautious evaluation of results:

- First, it must be emphasized that since there is no distinction on the grounds of extension of surgery, it is only possible to analyze its significance as a generalized *bodily aggression*. Anatomical localization and not extension of surgery stimulates certain types of tension as some of the authors have shown elsewhere.<sup>4, 5</sup>

- Furthermore, since the interviews were carried out by two female psychologists, further studies must be undertaken to evaluate the variable *sex of interviewer*. However the entire female sample gave proof of a more rapid post-operative course, a fact which denotes a positive identification transfer with the female psychologists. This result, so immediate and macroscopic, deserves further study.

Out of the four factors measured by the SCL, three show a significant reduction in the female sub-group (anxiety, depression, obsessions-compulsions) and from this one can assume a better post-operative stay in hospital for the women. These data partly contrast with the hypotheses of JANIS<sup>6</sup> or of CONRON and HARDY<sup>7</sup> regarding post-operative behaviour in relation to pre-operative anxiety and seem to agree with previous studies.<sup>8-11</sup> However, it is important, in discussing the results, to follow JANIS<sup>6</sup>

or BODLEY, JONES and MATHER,<sup>12</sup> especially about the reproducing, from the patients, patterns of infantile responses to fear and the transfert on the figures that the control of the danger depends on; or to follow BRUEGEL<sup>13</sup> about the importance of psycho-social factors that influence the post-operative suffering.

So our data could be interpreted in the sense that as women tend to see a greater vulnerability to stress attributed to them by social convention, the operation has permitted the discharge of a great amount of anxiety and pre-operative depression, and has also allowed a freer verbalisation in the talk with the psychologist, just because she was a woman, too.

On the other hand, a certain familiarity with physical suffering, together with a different body experience has permitted the female group to accomplish a more rapid post-operative recovery, also favoured by an identification mechanism with the female figure of the psychologist.

As far as the men are concerned, the experience of physical pain is considered to be an almost anomalous fact in their existential experience; an implied invulnerability and omnipotence of the body is doubted, while the operation produces unconscious fantasies of aggression thus giving rise to massive defense mechanisms. On the other hand, their tendency to verbal reticence during the interviews together with the negation of their own problems, has certainly contributed to keep all their scores at lower levels than the women's. Further, the general post-operative situation being more deeply felt would seem to show that a weakening of the defenses, also resulting from the physical stress of the operation, has allowed latent difficulties and problems to emerge, for which they have found themselves unprepared. It is important, finally, to put stress on the impotence following the forced inactivity and on the psychological problems connected with the removing from work. The maintaining of a higher degree of obsessions-compulsions, although not significant statistically, would seem to confirm the fact that the operation has not had a cathartic and releasing significance for the men, nor has it weakened the most rigid defense mechanisms.

All this, in our opinion, leads in the first place to consider more precisely the nature of defense mechanisms carried out in answer to the quality of the surgical operation. These problems have been studied, though from different points of view.<sup>14-17</sup>

In the second place as several authors emphasized,<sup>18-26</sup> we think it is necessary to acknowledge more and more importance to the influence of adequate pre-operative informations on the post-operative course: in other words, to the patient's psychological reality as a not negligible factor of his experience.

Furthermore, the precise role of the psychologist within the hospital structure is to be recognized and confirmed on the basis of the above considerations, especially in view of a correct programme of prevention of anxiety and depression linked to surgery both in the patients and in those concerned with them.

To end, three elements are of particular importance:

- precise and adequate pre-operative information gives the patient more efficient control over his fantasies concerning surgery which is consequently experienced more rationally;
- externalization of anxiety invested in surgery may help the patient to partially divest surgery of that anxiety and find its real root (personal, family, work problem, etc.);

— close steady interpersonal relationships between the patient and those delegated to safe-guarding his health help the patient to participate more actively in the recovery process, alleviating feelings of dependency, extraneousness and passivity.

In view of the above the activities of the surgeon and those of the psychologist must be carried out with full mutual respect on a cooperative non-conflictual basis. In this way, we think, the total problem of the patient can be handled efficiently.

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