

# Anxiety, Defense and Cognition

## *A Theoretical Basis for Practical Handling of the Surgical Patient*

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### Introduction

My aim in this short paper is to review certain dynamics of human behaviour, gleaned from psychological observation and research, that may have direct relevance for the surgeon and his patient. I hope to outline several theoretical formulations and use them as the basis for a guide to practical handling of the surgical patient's emotional reactions to his illness and treatment. Two theoretical models of behaviour have proved of high value in this regard. The first is older, appears enduring, and is probably more familiar to most non-psychiatric physicians. I refer to the "anxiety-defense" model, which postulates that stress produces conflict and arouses anxiety. The anxiety catalyzes the formation of psychological defenses. The second model is of more recent origin. In this, the "cognitive model," the focus is on the effects of stress on cognition—the mental process whereby consciousness is acquired of what is perceived by the senses or conceived by the mind. In other words, stress alters perception and the interpretation of percepts, which, in turn, frequently leads to alterations in behaviour.

### Anxiety-Defense Model

I would like to turn, first, to the more familiar model; namely, the stress-anxiety-defense model. Titchener (1967) provides a comprehensive summary of the psychological implications of surgery from this point of view. Stress, he states, is

a "stimulus which demands an adaptive response." With particular reference to surgery, the stress is the fear, anxiety, and depression associated with the procedure or the anticipation of it. These painful emotions are vigorously avoided in the mental sphere by a variety of defense mechanisms. Those most frequently encountered in surgical patients are:

1. suppression—a deliberate and willful attempt to avoid thinking about the surgery or some aspect of it;

2. repression—an unconscious and automatic reaction in which a wish, feeling, or thought more or less loses its capacity to enter awareness;

3. denial—an unconscious and automatic reaction which selectively prevents an awareness of some externally perceived event;

4. reaction formation—an unconscious and automatic reaction which attempts to deal with unacceptable wishes, feelings, or thoughts by converting them to their opposites.

Thus, the patient may consciously avoid discussing his anxiety and depression (suppression), or he may be unaware of these reactions (repression). He may show an inordinate degree of passivity and helplessness (regression), or he may refuse any assistance which is offered to him (reaction formation). He may mentally shut his eyes to his surgery and manifest only irritability and anger; or, in some cases, he may mentally shut his eyes to the reality of the surgery itself. These reactions affect the patient's relationship to the surgeon and hos-

pital personnel, the degree of energy available to him for dealing with other life stresses, and his convalescence generally.

The practical value derived from this theoretical model can be great. First, a knowledge of the defenses helps the staff to understand some aspects of the patient's behaviour which, otherwise, might seem strange, contradictory, or inexplicable. Second, with tact and proper timing, understanding can sometimes be imparted to the patient. Finally, and perhaps of greatest importance, this model forms the basis for a psychologically correct therapeutic attitude. As a result of defenses, hospital staff are often confronted with some of the most difficult aspects of human behaviour (Levine, 1942). If one can keep in mind that this behaviour is defensive—that it is an attempt by the patient to ward off painful feelings of anxiety and depression—then it becomes easier to be noncondemning. It is possible to react kindly without sympathy and firmly without judgment if one understands that the patient is not "just ornery" but is attempting to cope with physical and psychological pain.

### Cognitive Model

I turn now to a brief consideration of the cognitive model, which postulates that alterations in perceptual and conceptual awareness occur as a result of stress. As adults, particularly as well-educated adults working in the sciences, physicians are prone to equate cognition with concept formation. We perceive and we think in a word-

oriented fashion, preferring clear, abstract, arithmetic words having concise meanings. Of course, we may accept the more expressive and diffuse word usage of the artist or poet, but generally not in our work. We may fail to recall that cognitive function, like all functions of the human organism, develops. The cognition which I have just described—conceptual cognition—is not the only form of cognition; rather, it represents the highest level in a series of cognitive developmental states (Arieti, 1967). We need only remind ourselves that the 1-year-old lives in a wordless, phantasmic world. The 3-year-old, having a limited vocabulary, communicates predominately by body language; for him, words merely denote, rather than form, the basis of concept. The 5-year-old is just beginning the process of abstraction. In order to appreciate the varieties of wordless, preconceptual cognition, we need only remind ourselves of our mode of trying to communicate with someone who does not speak our language by using signs and charades; of our intuitive and empathic “understanding” of the infant; of the paleological thinking of our dreams; or of the “body English” that we impart when stroking a putt or releasing a bowling ball.

It would appear that stress, particularly the physiological and psychological trauma of surgery, alters cognitive function. The meaning of words and, consequently, concepts becomes less precise—fuzzy and foggy. Their use becomes less abstract and, consequently, more concrete or denotative. Both inductive and deductive reasoning are less dominant; thought becomes more personalized and teleological. We are familiar with many of these phenomena in delirium and other organic brain states, because they appear in exaggerated form. What is fruitful to an understanding of the surgical patient is that regression of cognitive function probably occurs, to some degree, in

every patient. I am not implying that every surgical patient suffers from delirium, that is, some physiological alteration in brain function, although further research may prove that this is so. What I am stating is a psychological truism; under stress, more recently acquired modes of function are partly or totally suspended. Earlier, more primitive modes are, thus, released.

What does this mean in terms of the practical management of the patient? It means that a simplified environment is less likely to be misinterpreted by the patient. It means that if actions and speech are slow and deliberate, the patient is more likely to perceive them correctly. It means that if you explain what you are doing in concrete terms and avoid unnecessary conversation, there is less chance of creating an ambiguous situation for the patient. The conclusion to be drawn from the cognitive model is this: for the most effective handling of the surgical patient, be simple, clear, and concrete.

One final point is worth noting. It has been repeatedly observed that the post-cataract patient becomes anxious and disturbed as a result of the prolonged bandaging of the eyes and the enforced blindness. The anxiety is generally explained in terms of feelings of helplessness. Further, it has been observed that patients in traction or large body casts become anxious and disturbed after prolonged confinement. Again, feelings of helplessness are most often invoked to account for the behaviour. The cognitive model suggests another explanation. With cognitive regression, verbal-symbolic communication and conceptualization yield, in part, to non-verbal communication. Motion and gesture become more relevant. Action begins to speak louder than words. However, the patient finds his mobility restricted by bandage, cast, pain, and doctor's orders. He cannot fully utilize action language in his attempts to reach out to others in

a way that is meaningful to him. Furthermore, the hospital and the staff compound the communication gap even more. Not only is the staff more likely to attempt communicating in the verbal-conceptual mode, which is more relevant for them, but modern gadgets, such as monitors and two-way intercoms, increase the distance between patient and staff. The manifest anxiety and feelings of helplessness exhibited by these patients is the result, then, of the inability to communicate with those around them. Closing the gap may be something as simple as holding the hand of the patient whose eyes are bandaged so that he can really experience the presence of someone. I am told by the psychiatric consultant of the Syrian Burn Hospital in Cincinnati that the staff attempt to touch some unbandaged spot on each burn patient while giving him nursing care.

### Summary

Both the anxiety-defense model and the cognitive model provide a scientific basis for practical handling of the surgical patient. Emerging from both models is a humanistic approach to the patient based on understanding and a non-judgmental attitude as well as on a knowledge of where the patient is psychologically and a willingness to meet him on his ground. The rewards in terms of a reduction of anxiety, depression, and human suffering can be enormous.

### References

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