CHAPTER 3

DOES HAPPINESS HEAL?
The case of fighting cancer with hope

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Summary

It is currently believed that happiness is healthy. It is claimed that happiness prevents health problems to some extent, and that it enhances recovery from illness. This paper deals with the latter claim and focuses on recovery from cancer, in particular on the theory that cancer patients can `fight' the disease with a `positive attitude'. This chapter considers the roots of that theory, measurement problems and empirical evidence. It is concluded that there is as yet no convincing evidence for that theory.

INTRODUCTION

"A 24 year old happily married woman who complained of a mole which had enlarged and begun to bleed was diagnosed as having a malignant melanoma. She was found to have metastasis disease. She was started on intensive cytotoxic therapy but responded only partially. She insisted on knowing her likely prognosis. When she was told she had two years at the most she declared `I will prove them to be wrong' and she said she would continue to live a normal life. This she did to the great surprise of the clinicians involved in her care. She is still alive and well four years later. She is convinced that her attitude has pulled her through, since other patients who were diagnosed at the same time as having malignant melanoma or an equivalent stage have already died" (Greer and Watson, 1987).

This patient did not describe her feelings in terms of happiness, but used concepts such as a `positive attitude', `fighting spirit' and similar expressions. For the sake of the discussion we will place these terms under the heading `happiness', in order to describe the mechanism which supposedly alters the course of the disease.

If we only referred to the literature on concern and happiness, this presentation would be rather short. Happiness is not a concept that is found in the cancer literature at all. Oncology is not a `happy' science.

Cancer

In this chapter I will focus on cancer and not on illness in general. First, some general remarks about cancer.

Cancer is not a single disease but a group of many, with differing aetiologies. There is an enormous difference between a young patient with Hodgkins' disease stage I (a curable disease) and an old patient with advanced oesophageal cancer (a fatal disease).

The course of the disease differs greatly depending on the diagnosis and the stage of the disease. Furthermore, therapies differ from one intervention, as is usually the case in surgery, to therapies which extend over a relatively short period (radiotherapy) or a longer period of time (chemotherapy). Symptoms of the disease vary from small almost negligible complaints to major handicaps. Side-effects of therapies vary from minor transient side-effects to long lasting side-effects. It is therefore meaningless to make generalized statements about `The Cancer Patient', or for that matter about the effects of a certain state of mind (happiness, helplessness) on the course of the disease. Specificity and precision are mandatory with regard to predictors in disease and treatment. Thus it is better to discuss the sequelae of happiness for a specifically-defined group of patients e.g. breast cancer patients stage 1, patients with advanced non-small cell lung cancer, or patients with a melanoma of a certain stage (according to Breslow).

Problems of interpretation

The above mentioned examples, and more can be found in the literature (see De Vries, 1986), are difficult to interpret.

Rose (1976) points out very convincingly that biological phenomena can be described and explained on many levels. He describes a hierarchy of explanations and descriptions in which the following levels can be discerned:

1. physical, 2. chemical, 3. anatomical-biochemical, 4. physiological (units), 5. physiological (systems), 6. psychological, 7. socio-psychological, 8. sociological. Each of these descriptions and explanations may be fully complete; which is most relevant depends upon the purpose of the description. In order to clarify Rose's view the following example is frequently used: music can be described by a physical scientist using words such as frequency and pitch; a music critic will describe the music as he experiences it, the way he interprets it. Both the engineer and the critic, describe the same phenomenon. Although the descriptions cannot be derived from one another, both are legitimate.

It is useful to note that only correlational links exist between the various levels in the models: there are as causal relationships. Thus, it is never justified to conclude that results on the psychological level (happiness or fighting spirit for instance) cause an effect on the biochemical-anatomical level (e.g. tumor regression) nor vice versa. In the literature the immune system is often described as having a mediating function. Whatever the mechanisms of the immune system are in this respect (Fox, 1981), it does not alter the fact that one should be very cautions when interpreting this kind of data.

Historical references

Thoughts about the influence of `the mind' on the development of cancer are by no means new: in the eighteenth century cancer was thought to be caused by stagnation and

coagulation of body fluids. Coagulation could be caused by a local problem, but it could also be brought about by internal derangement of the body juices. Local causes were thought to be mainly of a mechanical nature: a bruise as a result of a fall or a blow, or pressure caused by garments. Also the menopause and various psychic influences were often cited in the medical literature of the eighteenth century as an additional factor that might encourage the development of cancer. Furthermore some writers suggested things such as: family history, childlessness, a sedentary life, bad dietary habits, late nights and the consumption of alcohol and coffee. It is interesting for us to note the great significance which surgeons in the seventeenth and eighteenth centuries attached to psychological determinants, such as sorrow and fright. Some doctors even went so far as to suggest that nine out of ten women with cancer had suffered great grief. Childlessness was thought by many writers to be a cause of cancer - the number of nuns in French case histories for instance is striking. The lay public was well aware of this predilection: for instance a young woman once attributed her disease to not having any children, for which state of affairs she blamed her husband who was of a certain age!

Cancer personalities?

There are today a number of articles which suggest that certain personality traits, or `coping' styles, predispose to cancer or have a detrimental effect on the course of the disease (see Temoshok, 1987, for a review). These traits are usually described under the heading of a (C)ancer-Type personality. C-Type personalities are said to have difficulty in expressing emotions and to have a tendency toward helplessness/hopelessness. In reviewing this part of the literature one cannot help but conclude that the empirical evidence is inconclusive (Temoshok & Fox, in press).

A second and related line of inquiry is from certain authors who think that by changing the patient's emotional expression, the course of the disease can be altered in a beneficial way. Greer and Watson (1987) state that if mental adjustment to cancer affects outcome, this effect is unlikely to be observed in patients with advanced cancer. If one takes into consideration the growth rate of tumors it is not easy to see why this might be so for non-metastasized cancers. A lump in the breast for instance can only be detected once it has reached a certain size. At this point it already contains millions of cells. When one knows that a cell doubles every hundred days, it can be calculated that tumor growth will have started years before the tumor is detected. It is not easy to see how a positive attitude can influence a process which has already been going on for such a long time, with or without metastases.

Alternative medicine

Ideas about the effect of mood on cancer are particularly fashionable amongst those working in the area of non-traditional medicine. The area of non-traditional medicine is in this respect an interesting one.

Many cancer patients who use alternative cancer therapies do so for the reasons outlined by the patient mentioned in the example taken from Greer.

We conducted a study amongst cancer patients from our hospital and asked them if they used, had used or considered the use of non-traditional therapies. All in all we

interviewed 950 patients. Approximately 16% of our patients used or had used alternative cancer therapies. As was to be expected most of them used the Moerman diet; a smaller group used Simontons therapy and the rest was divided amongst several other therapies. A lot of patients had used more than one alternative therapy at the same time. A number of cancer patients who make use of alternative cancer therapies do so for just the same reasons as those outlined by the patient mentioned in the example taken from Greer.

The interesting point is: what do patients say about their use of alternative therapies: they do it in order to improve their resistance to disease. Approximately 15% stated that they used alternative therapy just for this reason. About 30% said they do it because they do not see any risk in it and that they feel that it makes them less dependant on the health care system. And only 20% of the patients stated that they use alternative treatments because they were convinced that it will help to cure them (Van der Zouwe et al., 1988).

If these methods are really effective, one wonders why more patients have not benefited from them.

Happiness and cancer growth, a spurious connection

As I stated before, `happiness' does not stand out as one of the concepts being used in this respect. A `positive attitude', `fighting spirit' or the like, are the keywords (Simonton et al., 1980; Lambley, 1987; Roud, 1987). There is, however, no sound empirical evidence for the claims being made by the proponents of these ideas (Simonton, 1982).

Why is it that, despite the lack of evidence, statements with regard to the `psychological aetiology' of cancer or the influence of the mind on the course of the disease are being made all the time? As far as I can judge there are three different and somewhat interrelated explanations:

1. It is difficult for people to accept that cancer is largely a matter of chance, a form of Russian roulette (Borst, 1985). People are inclined to ascribe their misery to external factors (stress, punishment for sins) rather than to some chance mechanism, see also Sontag (1977). By turning the events around, people hope to alter the course of their disease. Be happy, enjoy your life, laugh, relax, fight! is the message.
2. A neglected but important area are the rather difficult problems with regard to the measurement of `fighting spirit', `positive attitude' or `happiness'. I do not mean the problems with regard to the operationalization of these elusive concepts. These are surmountable. The problem is one of shifting norms. One sees in general in the literature that patients, when asked how they feel, or for that matter how their quality of life is, tend to answer on the positive side of the scale regardless of their real state. This seems not so much a question of response bias, which can be overcome by more sophisticated ways of interviewing, but rather an expression of people's tendency when making a judgment about themselves, to adjust their frame of reference according to the present situation. A person who has never experienced any pain, might judge a pain stimulus as intolerable whereas the same pain stimulus might be considered by a chronic pain patient as slight pain. Thus when a person who is severely ill is asked how he feels, this person will compare his present state with his recent past, which also encompasses his disease and not how he felt before his disease. Hence one explanation for the tendency in the literature that even seriously ill patients often say that they feel good and give accordingly high scores on scales measuring

wellbeing (Breetveld & Van Dam, 1985). One's anchor point seems to shift in accordance with the disease process. This seems to be a fundamental human mechanism protecting oneself against the misery which is brought about by disease and treatment. Consequently, it is difficult to differentiate between patients who are more positive, happy or show a better fighting spirit than others who do not show such a tendency: all patients score high on dimensions of well-being, quality of life or happiness.

3. It goes without saying that there are a few remarkable and unexplained tumor regressions, especially in melanoma and sometimes with other cancers as well. Obviously people build upon these badly understood and rare events. According to those who have studied these patients closely, they had `fought' their disease (see the above mentioned example). There has, however, never been a good prospective controlled study in this area, e.g. a comparison of patients who show a similar fighting or positive attitude to their disease and treatment and die compared to patients who survived. To be fair to those who work in this area, it is not easy to see how the many methodological problems can be solved in such a way that one can receive an unequivocal answer. However, everyone who has talked to patients about their disease knows that a fighting spirit is not uncommon and that patients often die in the middle of their battle against disease and death. It is a double tragedy that these patients who have invested so much of themselves in their treatment, lose their battle. They then can only blame themselves.

Trying to be happy is not always harmless.

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