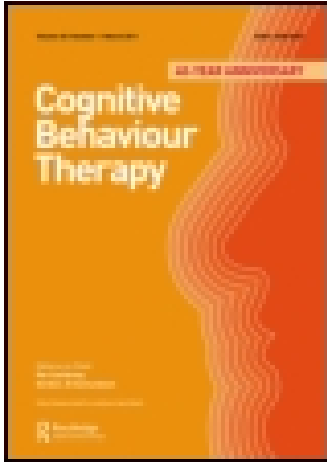


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Behaviour Therapy as an Aid in the Prevention of Cancer and Coronary Heart Disease

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Behaviour Therapy as an Aid in the Prevention of Cancer and Coronary Heart Disease

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Three experiments are reported in which details about personality, stress, smoking and other variables are elicited at the beginning of the study, and death and cause of death ascertained ten years later. It is found that personality and stress can successfully predict cancer and coronary heart disease, and do so very significantly better than does cigarette consumption. Behaviour therapy is shown to be able prophylactically to reduce very significantly the risk of cancer or coronary heart disease.

The identification of behaviour therapy with the application of learning theory to problems of behaviour has led to a considerable amount of research and application in the field of psychiatry, and has also given rise to a good deal of theoretical advance (Eysenck & Martin, 1988). It would be quite wrong, however, to imagine that psychiatry is the only area in medicine to which the principles of behaviour therapy can be applied. Eysenck (1987a, 1987b, 1988a, 1988b) and Grossarth-Maticek, Eysenck and Vetter (1988) have shown that these principles can be applied with equal success in the area of physical disease, notably cancer and coronary heart disease. These studies demonstrate the value of "holistic medicine", i.e. the view that personality, motivation, stress and other psychological factors play an important part in the interaction between disease process, immune reaction, and outcome. In order to understand these processes, it is necessary to give up the Cartesian notion of body-mind dichotomy, and instead adopt the view of a body-mind continuum, just as physicists now speak of a space-time continuum, rather than regarding space and time as being qualitatively different.

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YUGOSLAV STUDY

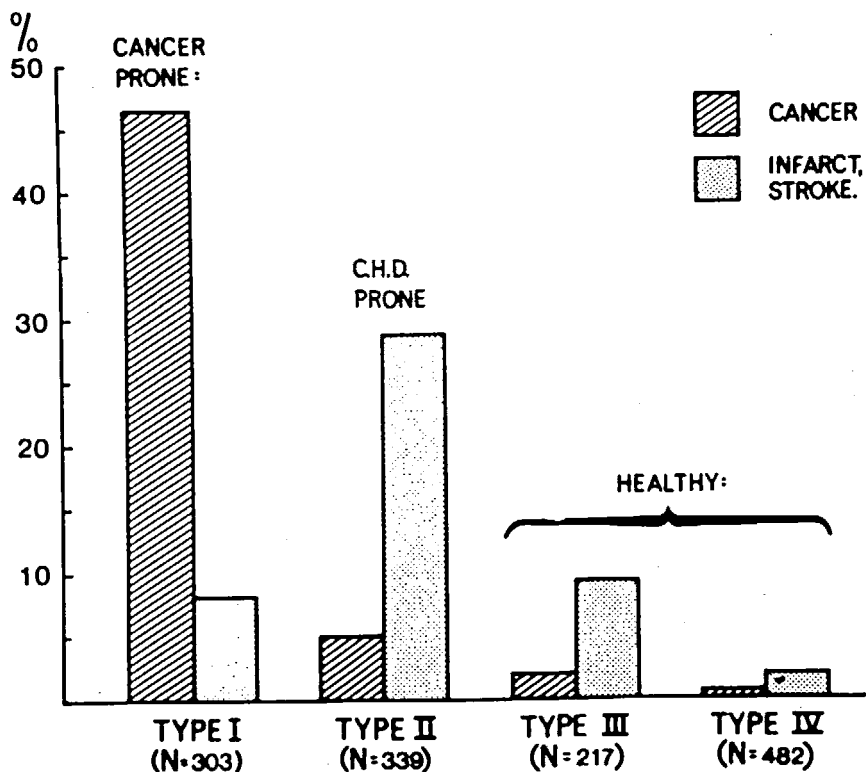


Figure 1. Death from cancer and CHD according to personality type: Yugoslav study. (Eysenck, 1988b).

Personality and disease

The view that certain personality types are cancer-prone, or prone to other diseases, goes back at least as far as Hippocrates and his followers, who spoke of melancholia constituting the essential personality feature antedating cancer. Many medical observers have since suggested a variety of personality traits as being characteristic of the cancer-prone personality, including such traits as being over-cooperative, appeasing, unassertive, over-patient, avoiding conflict, being compliant with external authorities, suppressing emotions such as anxiety and anger, and having difficulties in coping with interpersonal stress, leading to feelings of helplessness, hopelessness and depression. Following the Type A-Type B terminology, supposedly characterizing a coronary heart disease-prone personality and its opposite, the cancer-prone

HEIDELBERG STUDY (normal group)

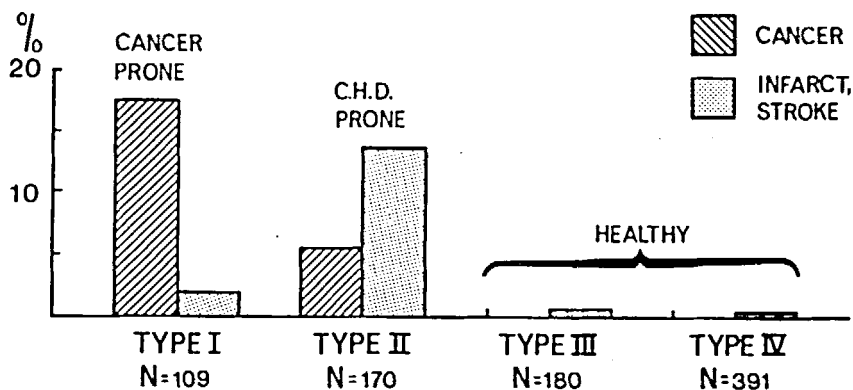


Figure 2. Death from cancer and CHD according to personality type: Heidelberg "normal" study. (Eysenck, 1988b).

type has recently been named "Type C" (Baltrusch, Stangel, and Waltz 1988). The whole concept of the "disease-prone personality" has recently been examined by Friedman and Booth-Kewley (1987). They conclude that there is sufficient evidence to argue for a key role for psychological research in the prevention and treatment of disease. (p. 539.) A detailed argument for the holistic approach to medicine can be found in Pena (1983).

The personality characteristics of the coronary heart disease-prone person are in many ways different from those of the cancer-prone personality. Rosenman and Chesney (1980) have summarized research on the Type A-Type B concept, which has not fared too well in respect to predictive accuracy (Eysenck, in press). What does seem predictive is an exaggerated anger response, combined with strong feelings of hostility and aggression. In this, clearly, the coronary heart disease-prone person differs markedly from the cancer-prone person. There is also some similarity however, in the sense that coronary heart disease-prone persons also find difficulties in coping with interpersonal stress (Booth-Kewley & Friedman, 1987; Krantz & Manuck, 1984).

Earlier evidence for the relationship between personality and disease has been reviewed by Eysenck (1985). We shall here be concerned with some recent studies which have built on these established relationships in order to identify cancer-prone and coronary heart disease-prone individuals, and which have then gone on to use the principles of behaviour therapy to change behaviour patterns in the direction of a healthier type of personality (Ey-

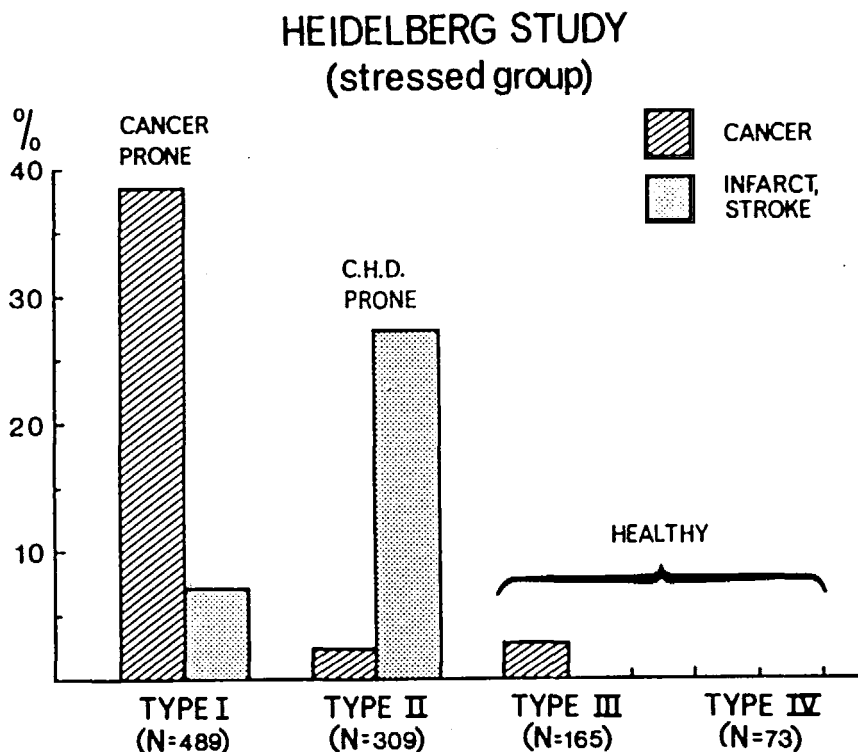


Figure 3. Death from cancer and CHD according to personality type: Heidelberg "stressed" study. (Eysenck, 1988b).

senck, 1988 a, b; Grossarth-Maticek et al., 1988; Grossarth-Maticek, Eysenck, Vetter & Frentzel-Beyme, 1988).

Correlational studies

In the three studies to be briefly summarized, individuals were selected on a semi-random basis (with restrictions on age and sex composition), and were administered a personality inventory constructed in such a way as to embody theories concerning cancer-prone and coronary heart disease-prone personality, and were then followed up over a period of ten years or more, when death and cause of death were ascertained. Altogether, probands were allocated to one of four types. Type I is the cancer-prone type; Type II is the coronary heart disease-prone type; Type III is a mixed type presumed relatively immune to cancer and coronary heart disease, and Type IV is the healthy, autonomous type. In the appendix is given a short scale which will

Table 1. Death from cancer and CHD according to personality: Yugoslav study. (Eysenck, 1988b).

	Alive	Cancer	Infarct or stroke	Other	Total
Type I	76=25.1%	140=46.2%	25= 8.3%	62=20.5%	303
Type II	101=29.8%	19= 5.6%	99=29.2%	120=35.4%	339
Type III	129=59.4%	4= 1.8%	20= 9.2%	64=29.5%	217
Type IV	438=90.9%	3= 0.6%	8= 1.7%	33= 6.8%	482
Unclassified	6	0	4	2	12
Total	750=55.4%	166=12.3%	156=11.5%	281=20.8%	1353

give readers some idea of the nature of these types; more detailed information is given in a paper by Grossarth-Maticsek, Eysenck and Vetter, (1988).

The first of the samples was collected in Yugoslavia, and constitutes a random sample of mainly elderly people. The second sample was collected in Heidelberg, and constitutes a normal sample, rather younger than the Yugoslav one, selected along quota lines. The third sample was constituted of persons who were nominated as suffering from marked interpersonal stress, the nominations coming from members of the second sample. The Heidelberg "stressed" sample is similar in age and sex composition to the Heidelberg "normal" sample, the only difference being the incidence of stress. This enables us to study the importance of stress as far as mortality from cancer, coronary heart disease and other causes is concerned.

The results for the Yugoslav study are shown in Table 1. It will be seen that, as predicted, Type I probands die of cancer rather than coronary heart disease, while Type II persons die of coronary heart disease rather than of cancer. Type III and Type IV show much less mortality from these causes.

Table 2. Death from cancer and CHD according to personality type: Heidelberg "normal" study. (Eysenck, 1988b).

	Alive	Cancer	Infarct or stroke	Other	Total
Type I	78=71.6%	19=17.4%	2=1.8%	10=9.2%	109
Type II	109=64.1%	10=5.9%	23=13.5%	28=16.5%	170
Type III	185=98.4%	0	1=0.5%	2=1.1%	188
Type IV	387=99.0%	0	1=0.3%	3=0.8%	391
Unclassified	14	0	0	0	14
Total	773=88.6%	29=3.3%	27=3.1%	43=4.9%	872

Table 3. *Death from cancer and CHD according to personality type: Heidelberg "stressed" study. (Eysenck, 1988b).*

	Alive	Cancer	Infarct or stroke	Other	Total
Type I	188=38.4%	188=38.4%	34=7.0%	79=16.2%	489
Type II	148=47.9%	7=2.3%	86=27.8%	68=22.0%	309
Type III	153=92.7%	4=2.4%	0	8=4.8%	165
Type IV	71=97.3%	0	0	2=2.7%	73
Unclassified	6	0	0	0	0
Total	566=54.3%	199=19.1%	120=11.5%	157=15.1%	1042

Table 2 shows the results for the Heidelberg "normal" sample. Mortality here of course is much less, as the sample is much younger than the Yugoslav one; nevertheless, here too type I tends to die of cancer, Type II of coronary heart disease. Type III and Type IV are healthy and show very little in the way of mortality.

Table 3 shows the results for the Heidelberg "stressed" sample. Mortality here is very significantly higher than for the Heidelberg "normal" sample, indicating the importance of stress for mortality. The figures again show Type I much more liable to die of cancer, Type II of coronary heart disease. Here too, Type III and Type IV are relatively immune to these diseases.

Figures 1, 2 and 3 show in diagrammatic form the results of these studies. They demonstrate a very clear-cut statistical relationship between personality and disease. It might be thought that perhaps such factors as blood pressure, cholesterol, or amount of smoking might be wholly or in part responsible for these differences, but this is not so. Table 4 shows the relative influence of these factors as compared with personality, and it will be seen that personality is something like six times as important as these factors taken together. Smoking, in particular, was found to correlate with disease only in people who were cancer-prone or coronary heart disease-prone by personality; there was no correlation for Type III and Type IV.

Intervention studies

The results discussed so far are of course entirely correlational; they suggest but do not prove the existence of a causal relationship between personality and disease. To make such a causal relationship more likely, we carried out several intervention studies, in which an attempt was made to use the principles of behaviour therapy to alter the behaviours characteristic of Type I and II in the direction of the behaviours characteristic of Type IV, i.e. the

Table 5. Effects of prophylactic behaviour therapy. (Eysenck, 1988a).

Risk: cancer	In Heidelberg stressed sample			Total
	Alive	Deceased from		
		other cause	cancer	
Control group	19	15	16	50
Therapy group	45	5	0	50
Total	64	20	16	100

Risk: infarct/stroke	In Heidelberg stressed sample			Total
	Alive	Deceased from		
		other cause	infarct/stroke	
Control group	17	13	16	46
Therapy group	37	6	3	46
Total	54	19	19	92

achievement of greater autonomy, a less repressive attitude towards emotional expression, and most of all the learning of coping mechanisms to deal with the interpersonal stresses so prominent in persons of Type I and Type II. A detailed description of the methods used is given elsewhere (Grossarth-Maticek and Eysenck, in press). Here we will concentrate on the results of these intervention studies.

The general scheme followed in the three studies to be described was always the same. Subjects were collected on the basis of not suffering from cancer, heart disease or any other debilitating illness. Only persons of Type I or Type II were used in these studies, and they were assigned on a random basis to either a control or a treatment group. They were then followed up for varying periods, and finally death and cause of death were ascertained on the basis of death certificates. The randomization process ensures the applicability of the normal tests of significance, and at the same time equalizes the influence of other factors, such as smoking, medication, etc.

In the first of these studies, we used 100 cancer-prone probands and 92 coronary heart disease-prone probands. The total numbers were divided in two to make a control and a therapy group, and probands were followed up for a period of 13 years. The results are shown in Table 5. It will be seen that the method of behaviour therapy used at the beginning of the follow-up period, involving individual treatment for between 25 and 30 hours in all, was very effective in preventing both cancer and coronary heart disease. Clearly, long term individual behaviour therapy can be very effective as a prophylactic

Table 4. Personality and physical factors as determinants of death from cancer and CHD. (Grossarth-Maticek & Eysenck, 1988).

		mean			b			mort. (per cent)		
		Y	H1	H2	Y-	H1	H2	Y	H1	H2
	type									
rf: systolic blood pressure	I	151.0	—	174.2	.056	—	.024	7.6	—	7.2
dis.: infarct/stroke	II	160.7	—	207.6	.084	—	.108	27.2	—	23.7
mortality	III	148.3	—	186.3	.005	—	.010	7.7	—	2.3
	IV	144.6	—	185.8	.003	—	.021	1.8	—	5.0
	all	150.7	—	187.7	.035	—	.041	11.1	—	9.1
significance of differences		.0000	—	.0000	.0004	—	.0011	<.0001	—	<.0001
rf: diastolic blood pressure	I	90.0	—	85.8	.026	—	.019	5.1	—	7.2
dis.: infarct/stroke	II	93.7	—	93.5	.093	—	.071	26.8	—	24.5
mortality	III	88.6	—	88.9	.020	—	.004	8.5	—	2.5
	IV	86.8	—	89.0	.014	—	.007	2.1	—	5.5
	all	89.6	—	88.8	.038	—	.025	10.6	—	9.9
significance of differences		.0000	—	.0000	.0137	—	.0494	<.001	—	<.0001
rf: blood cholesterol	I	255.6	217.5	258.3	.011	.004	.037	8.3	3.2	8.5
dis.: infarct/stroke	II	250.4	254.4	305.1	.036	.054	.046	29.4	9.7	24.7
mortality	III	245.8	216.8	282.6	.027	.000	.003	9.2	1.8	1.8
	IV	245.5	217.9	280.5	.001	.001	.000	1.8	.8	3.5
	all	249.1	224.9	277.8	.019	.014	.020	12.2	3.9	9.6
significance of differences		.0330	.0000	.0000	n.s.	n.s.	.0486	<.001	.0008	.0000

	type	mean			b			mort. (per cent)		
		Y	H1	H2	Y	H1	H2	Y	H1	H2
rf: cigarettes per day	I	15.7	13.0	16.9	.000	.003	.000	7.7	4.1	6.9
dis.: infarct/stroke	II	10.4	18.8	14.4	.038	.050	.161	29.8	12.0	27.6
mortality	III	11.6	8.9	12.2	.021	.016	.007	8.3	2.5	1.7
	IV	10.8	8.2	10.9	.002	.008	.011	1.8	1.2	3.5
	all	11.9	11.1	15.0	.005	.019	.045	11.9	5.0	9.9
significance of differences		.0000	.0000	.0000	n.s.	n.s.	.0000	<.0001	.0002	.0001
rf: cigarettes per day	I	15.7	13.0	16.9	.075	.019	.044	8.2	3.6	8.3
dis.: lung cancer mortality	II	10.4	18.8	14.4	.020	.010	.003	2.5	2.5	1.5
	III	11.6	8.9	12.2	.003	.015	.007	1.3	2.4	1.7
	IV	10.8	8.2	10.9	.002	.008	.011	.6	1.2	3.5
	all	11.9	11.1	15.0	.025	.013	.016	3.1	2.4	3.7
significance of differences		.0000	.0000	.0000	.0001	n.s.	.0113	<.0001	n.s.	.0000

largest (abs.) value is italic

For Yugoslavia, the organic variables represent a single measurement taken in 1966 (cholesterol: 1969).

For Heidelberg, the organic variables are the average of up to 7 measurements taken in 1972.

Abbreviations: rf = risk factor, dis. = disease, mean = mean of organic variable within type groups, b = regression coefficient of the dependent variable on the organic variable within type groups, mort. = mortality (the dependent variable) within type groups, adjusted for the organic variable, Y = Yugoslavia, H1 = Heidelberg representative, H2 = Heidelberg stressed, n.s. means $p > .05$.

Table 6. Death from cancer and other causes in control and therapy subjects; Group therapy.

	Therapy Group	Control Group
'N'	245	245
Untraceable	6	11
Follow-up group	239	234
Died of:		
Cancer	18	111
CHD	10	36
Other causes	20	33
	} 48	} 180
Still living	191	56

means of preventing cancer in cancer-prone probands, and coronary heart disease in coronary heart disease-prone probands.

In the second study, we used group therapy, applying the same principles to groups of around 20 probands. The groups met a number of times, totalling between 6 and 30 hours, depending on the wishes of the group. The therapy group and the control group both contained 245 randomly assigned probands of Type I or Type II, and it will be seen from Table 6 that group therapy also was very effective in preventing death from cancer or coronary heart disease in the therapy group, as compared with the control group. Here the follow-up period was 8 years.

In the third of these prophylactic studies, we used short individual therapy, aided by a printed leaflet setting out aims and methods of the treatment, which was given to the probands to keep and read repeatedly. The one-hour treatment was administered by students who had been taught the principles of behaviour therapy as applied to physical disease. There was a therapy group of 600, a control group of 500, and a placebo group of 100 who received "dynamic" type therapy, and a leaflet outlining the principles of dynamic psychotherapy as applied to physical disease. This placebo treatment was introduced in order to test the possibility that simply interacting with probands might have a beneficial effect. Table 7 outlines the results; it will be clear that therapy has a profound effect as compared with placebo treatment, which was no better than the complete lack of treatment in the control group. No detailed probability statistics are given as these are well below the .001 level in all 3 studies. The follow-up period was 10 years.

Is it possible to apply behaviour therapy to persons suffering from incurable disease, in an attempt to prolong life? Two studies we have carried out suggest that it is possible. In the first of these, we formed 24 pairs of patients suffering from similar types of cancer, having similar treatment and similar

Table 7. Death from cancer and other causes in control, placebo and therapy subjects; short individual therapy.

	Died of Cancer		Died of CHD		Other Causes of Death		Total Deaths		Still Living	
	No.	%	No.	%	No.	%	No.	%	No.	%
Groups:										
1 — Control (N=500)	106	21	145	29	164	33	415	83	78	16
2 — Placebo (N=100)	22	22	31	31	28	28	81	81	19	19
3 — Therapy (N=600)	27	4	47	8	115	19	189	32	409	68

(Seven persons in Group 1 and two in Group 3 could not be traced).

expectation of life. One person in each pair was randomly assigned to a treatment group, the other to a control group, and then survival time was ascertained for all the patients. The results are shown in Table 8. It will be seen that the total survival time of the treatment group was 5.07 years, that of the control group 3.09 years. The difference is highly significant statistically. The plus⁽⁺⁾, minus⁽⁻⁾, and equal⁽⁼⁾ signs on the right side of the table indicate whether survival time was longer for the person in the therapy group, the control group, or was equal. It will be seen that there are many more 'pluses' than 'minuses', with only one 'equal' sign.

In another study we looked at the survival time for 100 women suffering from terminal cancer; these women came from a larger group of women enabling us to obtain equal numbers in the four cells of the research design. Half of these had elected for chemotherapy, half had rejected it, and psychotherapy was offered to, and accepted by 25 women in each of these two groups; no psychotherapy was offered to the remainder. We thus have four groups of 25 women each, receiving 'no type of therapy', chemotherapy + psychotherapy', chemotherapy only', or 'psychotherapy only'. Survival time was 11.28 months for the group receiving no type of therapy, 14.08 months for those receiving chemotherapy only, and 14.92 months for those receiving psychotherapy only. Those receiving both types of therapy survived for 22.40 months. The difference between chemotherapy only and psychotherapy only was not significant, but both were significantly better than no therapy. The combined therapies were significantly better than either therapy alone, and there appeared to be a significant synergistic effect, the two therapies together producing a survival rate significantly higher than that due to their separate effects.

Table 8. *Survival of treated and not treated cancer patients in years.*

Type of cancer	No. of pairs of patients	Survival time, years			
		therapy group	control group		
Scrotal	1	5.8	3.2+		
Stomach	1	4.8	1.8+		
	2	2.4	2.3+		
Bronchiolar	1	1.7	2.4—		
	2	5.6	1.5+		
	3	4.2	1.6+		
	4	3.2	1.1+		
	5	1.7	1.7=		
	6	4.5	1.2+		
	7	5.2	1.0=		
Corpus uteri	1	6.8	4.2+		
	2	4.5	4.8—		
	3	7.2	3.5+		
	4	8.2	3.1+		
Cervical	1	5.5	4.2+		
	2	6.1	4.0+		
	3	3.2	3.3—		
	4	4.5	4.1+		
	5	2.8	3.6—		
Colon and rectum	1	9.5	4.2+		
	2	7.5	2.1+		
	3	6.3	4.9+		
	4	4.8	4.3+		
	5	5.7	4.1+		
TOTAL	24	0	5.07	0	3.09

In this study, different types of psychotherapy were used, including dynamic psychotherapy, ordinary behaviour therapy, and a special "creative novation therapy" we have developed in order to deal with the prevention and treatment of physical disease. The mean survival rates for the various groups receiving these different treatments are given in Table 9; it will be seen that dynamic psychotherapy does not improve on no psychotherapy, and that creative novation therapy is superior to ordinary behaviour therapy.

Conclusion

In this paper I have concentrated on our own work, but there is now a large literature suggesting that personality and stress do play an important part in

Table 9. Survival time in months of 100 terminally ill women cancer patients receiving different types of psychotherapy, or no psychotherapy.

Type of Psychotherapy	Survival time in months	
	N:	Mean:
No Psychotherapy:	50	12.68
Dynamic Psychotherapy:	12	12.83
Behaviour Therapy:	14	15.29
Creative Novation Therapy:	24	23.54
Mean of Therapy Groups:	50	17.22

disease, and that psychological methods of treatment, notably the methods of behaviour therapy, may have a pronounced prophylactic effect, and may even prolong life in terminally ill patients. Theories have been developed to account for these effects, notably involving the immune system, but there is too little evidence as yet to give strong support to any of these theories. What is most needed at the moment is a replication of the studies here summarized, involving also immunological assays of control and therapy groups. Clearly the subject matter is one ideally suited for interdisciplinary study, involving oncologists, experts on diseases of the heart and the circulation, epidemiologists, immunologists, and psychologists. It is well known that interdisciplinary studies are particularly difficult to arrange and carry out, but the need is obvious, and the rewards are large. What cannot be doubted any longer, however, is the importance of psychological factors, such as personality and stress, in the genesis and progress of physical diseases like cancer and coronary heart disease. The recognition of this fact is a sine qua non for further advances in prophylaxis and treatment.

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APPENDIX

How to score the test

Add scores on individual questions, as instructed. You will get four scores: one for Type I, one for Type II, one for Type III, and one for Type IV. The scores are what psychometricians call 'ipsative', i.e. you compare each with each, and the highest determines your type. You do not compare yourself with other people, or a population norm! The greater your score on Type I, as compared with Type IV, the more cancer-prone is your personality. The greater your score on Type II, as compared with Type IV, the more coronary heart disease-prone is your personality. If your score on Type III is the highest you are not cancer-prone or coronary heart disease-prone, but may act in conventional ways. If your score on Type IV is the highest, you do not have a cancer-prone or a coronary heart disease-prone personality, and the greater the difference in scores, the better!

Note. Normally these scales are applied by an experienced interviewer, and scored after long discussions with the person interviewed. Do not take your scores too seriously; the scales are included to illustrate the meaning of the personality types.

Instructions

Type I. Add rating on Question 1. Add score on Type I. Question 4: If the answer is "No", and the reason is (1), give yourself 10 points. Question 5 & 8: Add the points on these scales to your score.

Type II. Add rating on Question 2. Add score on type II. Question 4: If the answer is "No", and the reason is (2), give yourself 10 points. Questions 5 & 6: Add the points on these scales to your score.

Type III. Add rating on Question 3. Add score on Type III. Question 4: If the answer is "No", and the reason is (3), give yourself 10 points. Questions 5 & 6: Add the points on these scales to your score.

Type IV. If your score of questions 1 & 2 & 3 (taken together) was less than 15, give yourself 10 points. Add score on Type IV. Question 4: If the answer is "Yes", give yourself 10 points. Questions 5 & 6: If your score was less than 5 points on either scale, give yourself 10 points for that scale.

Short scale

This is a short scale for self ratings in relation to the four personality types discussed in this article. Each question is followed by a series of numbers from 1 to 10, and the subject is asked to indicate how closely the description fits him, 1 denoting, "not at all" and 10 denoting "perfectly".

1. Considering the last 10 years of your life, have you been repeatedly hopeless and depressed during this time, either because of the withdrawal of persons who were particularly important to you, and/or your failure to realize certain particularly important aims in life. This hopelessness and depression was caused because these events made it impossible for you to satisfy your most important emotional needs, such as those for love, nearness, understanding, recognition, etc. The cause might be the death of, or the separation from some particularly important person, causing disappointment, difficulties etc. How closely does this description fit your own case?

Not at all 1 2 3 4 5 6 7 8 9 10 very much so

2. Considering the last 10 years of your life have you during that period been repeatedly excited, annoyed and resigned because of people who disturbed you and interfered with your plans? This excitement and annoyance would be caused by your failure in spite of constant effort to change the situation, so that this person or persons were able to prevent the satisfaction of your all-important needs, or the achievement of an all-important goal for you, such as happiness with a sexual partner, or advancement at work. How closely does this description fit your own case?

Not at all 1 2 3 4 5 6 7 8 9 10 very much so

3. Considering the last 10 years of your life, particularly your relation with people who were particularly important for you from the emotional point of view (either positively or negatively) which of the four typical reactions described below would be most descriptive of you, and to what extent.

Type I

I seek, and long for closeness and emotional contact with a person or persons all important to me who are at the moment too distant from me because of a separation, lack of understanding on the part of my partner, because of the death of an all important person, or because of some shocking or too demanding events. I would be willing to do anything to diminish this distance, but I do not succeed in reaching the wished for intimacy. How closely does this description fit your own case?

Not at all 1 2 3 4 5 6 7 8 9 10 very much so

Type II

I seek distance or separation from one person or persons whose closeness to me either as partner, in a work situation etc., I experience as crushing. In spite of my efforts I fail to achieve this distancing or separation, largely because of fear of the consequences, such as fear of financial difficulties. How closely does this description fit your own case?

Not at all 1 2 3 4 5 6 7 8 9 10 very much so

Type III

At different times I alternate between great emotional closeness to a person who is important to me, and great emotional distancing and separation. My actions only achieve a regular alternation of too great closeness and too great distance interspersed with moments in which nearness and distance are optimally equated for me. How closely does this description fit your own case?

Not at all 1 2 3 4 5 6 7 8 9 10 very much so

Type IV

My relation with people who are important to me is characterized neither by too great emotionally crushing nearness nor too great distance, i.e. nearness and distance are for the most part optimal, and regulated appropriately, i.e. by increasing the distance to people who annoy me, and decreasing the distance to people with whom I interact positively. How closely does this description fit your own case?

Not at all 1 2 3 4 5 6 7 8 9 10 very much so

4. Considering the last 10 years of your life, were you always in a position to enjoy relaxation in various bodily activities, such as sport, work, sex etc., using these activities as a pleasant alternative to mental relaxation and activity.

Yes/No

If the answer is no, were you prevented from doing so:

(1) By the sudden or gradual change due to persons distancing themselves from you, or the loss of a position in your work situation.

(2) Because of people or conditions disturbing and annoying you without you having the power to change them according to you desires, or to leave them.

(3) Through people who alternated and made emotionally unacceptable demands on you, while at other times distancing themselves from you. (A Yes answer denoted type IV; answers 1, 2 and 3 respectively Types I, II and III.)

5. Considering the last 10 years of your life do you find that in your activities, four thoughts and your memories you have repeatedly acted in such a way that emotionally negative (undesirable) consequences occurred, and that you were unable to find ways of acting which led to more positive and desirable consequences, e.g. leading to better interaction between you and persons emotionally important for you. How closely does this description cover you?

Not at all 1 2 3 4 5 6 7 8 9 10 very much so

6. Do you have frequent feelings of fear and anxiety, i.e. a general state of anxiety, a syndrome of anxiety, periods during which you suffer from anxiety, fears of being threatened or persecuted, fear of not being able to cope

with life and its problems, fear of specific situations? However these anxieties may have originated, reference is simply to the feeling mentally and bodily, or suffering from such fears. These fears should be relatively unrealistic, in the sense that you are in the position to avoid them if need be.

How strong is this anxiety: 1 2 3 4 5 6 7 8 9 10

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