Key messages

- Characters in soap operas lead very dangerous lives
- Their lives are more dangerous even than those of Formula One racing drivers or bomb disposal experts
- People suffering from many forms of cancer and other serious diseases have better five year survival rates than do these characters
- Could the exaggerated portrayal of these violent and dangerous lives be contributing to our distorted national perceptions about violent crime and death?

Discussion

This paper has proved what has been long suspected to be the case: Brookside Close, Coronation Street, Albert Square, and Emmerdale are highly dangerous places to live. Characters tend to die young and from a variety of obscure and often violent causes, ranging from the mystery virus in *Brookside*, which killed three, to a plane crash in *Emmerdale*, which killed four.

Of course soap opera has to be melodramatic to be interesting, but should not the portrayal of death be a little more reflective of real life? It seems sad that for soap operas to hold our interest they have to be about as dangerous as Formula One racing.

We hope this paper will stimulate further investigation and debate into the two soap operas for which we were unable to produce a comprehensive cast list. In the meantime, however, characters in these serials would be advised to wear good protective clothing (designed to withstand sharp implements, sudden impacts, and fire) and to receive regular counselling for the psychological impact of living in an environment akin to a war zone. We apologise in advance to the estate agents covering these areas, because for the rest of us the advice is clear: don't buy your next house in Albert Square, Brookside Close, Emmerdale, or Coronation Street.

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Reliability of distance estimation by doctors and patients: cross sectional study

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Abstract

Objective: To assess the reliability and accuracy of distance estimated by doctors and patients.

Design: Comparison between estimated and measured distances of six familiar sites around Guy's Hospital, London.

Subjects: 100 hospital consultants and 100 patients.

Main outcome measures: Median (range) of estimated distances, and mean (SD) of the difference between estimated and measured distances.

Results: Both doctors and patients gave a wide range of estimates of distance. The estimates differed by up to 14.6-fold from the measured distances, and the difference between minimum and maximum estimates was up to 62.5-fold.

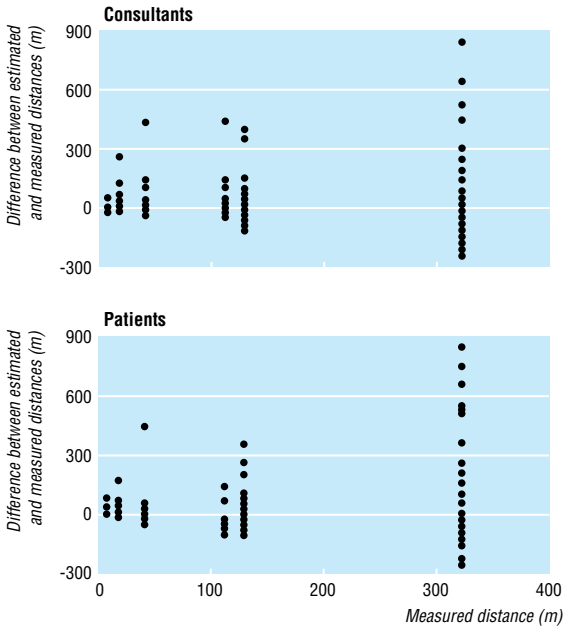
Conclusion: Doctors and patients were inaccurate at estimating distances, which implies that estimates of distances walked are not reliable indicators of a person's health.

The assessment of a patient's walking ability is a simple and practical method of evaluating the state of respiratory, cardiovascular, peripheral vascular, and neurological disease.[1 2] Such assessment correlates well with more sophisticated assessments of cardiorespiratory function or muscle strength[3] and is important in assigning scores in many clinical disability rating scales—for example, Kurtzke's expanded disability status scale for multiple sclerosis.[4]

The two most common methods for patient assessment are the maximum distance a patient can walk or the distance they can walk until the onset of symptoms. These distances are infrequently measured in clinical practice. Doctors have traditionally relied on their own or patients' estimates of the distance walked around familiar places. One study assessing the accuracy of trained and untrained artillery observers in estimating target distances ranging from 600 m to 1550 m showed wide variability.[5] To our knowledge, there are no published studies assessing the accuracy of distance estimates made by doctors and patients.

Subjects and methods

We sent a questionnaire to all 198 consultants in our hospital asking them to estimate (in yards or metres) the dimensions of a hospital ward and the distances between five familiar sites at the hospital. A category for don't know was provided to prevent guessing. One hundred and five (53%) questionnaires were returned, of which 100 were completed. The same questionnaire was given to 100 consecutive adult patients from a general medical and neurological ward and a neurology outpatient clinic. None of the consultants or patients had an overt psychiatric disorder or cognitive dysfunction. All study sites were later measured with an architect's tape measure in metres.



Differences between estimated and measured distances (in metres) for consultants (n=100) and patients (n=100).

Key messages

- Doctors and patients are inaccurate at estimating distances
- Estimates of distance can differ by up to 14.6-fold from measured distances, and the difference between the minimum and maximum estimates can be up to 62.5-fold
- When estimates are expressed as a percentage of the measured distances, estimates for shorter distances are more inaccurate than those of longer distances
- Decisions regarding health based on estimates of distance are unreliable
- The economic implication of estimating distance is considerable

Results

The consultants were more familiar with the hospital sites than the patients. The number of consultants giving estimates for the six distances varied between 45 and 97 and the number of patients between 10 and 62 (table). Both consultants and patients inaccurately estimated the distances. Their mean estimates correlated moderately with the measured distances ($r=0.73$ and 0.56 respectively), and the range of estimates was wide and generally greater for consultants. The estimates for the whole group differed by up to 14.6-fold from the measured distances, and the difference between minimum and maximum estimates was up to 62.5-fold. This variability was partly due to the presence of a few outliers (figure) since the differences between the measured distances and the median estimates of both groups were small.

When estimates were expressed as a percentage of the measured distances the estimates for shorter distances were more inaccurate than those of the longer distances. The patients' mean estimate of a ward 6.6 m wide was 17.4 m, an error of 163.9%, while the consultants' mean estimate of the same ward was 10.1 m, an error of 52.8%. On the other hand, the patients' mean estimate of a 319.1 m walk to the local station was 452.6 m, a 41.8% error, while the consultants' mean estimate of the same distance was 339.2 m, a 6.3% error. However the differences between the mean estimates of both groups were not significant, with the exception of the 319.1 m distance (table).

Discussion

This study suggests that people are inaccurate at estimating distances and that medical education is no safeguard. The range of estimates was wide suggesting that any decisions about health based on estimating distance are unreliable. Although estimates were proportional to the distance measured—indicating that consultants and patients were capable of comparing distances and therefore possibly able to estimate changes—the potential value of this observation needs to be evaluated against the test-retest variability of these estimates. The comparable inaccuracy of estimates for both groups suggests that selecting mainly patients with neurological disease (90%) did not bias results or limit their generalisability to other patient groups. Participants are also unlikely to have deliberately provided spurious estimates since the outlier values were from participants who had given more reasonable estimates. As both groups comprised adults the results cannot be generalised to other ages.

Clinical assessments and therapeutic decisions are often based on estimates of distance—for example, the severity of angina, claudication, and chronic respiratory failure—and the effect of treatment on these conditions is usually assessed by the distance a patient can walk before the onset of symptoms. The results of some of the most hailed clinical trials in multiple sclerosis have been based on clinical disability scales related to ambulation, including the expanded disability status scale.[6 7] A 1.0 step change on this 20 grade scale is regarded as an important change, although the difference between grades 5.5, 5.0, 4.5, and 4.0 is the ability to walk 100, 200, 300, or 500 metres respectively.[2] Such distances are usually estimated and infrequently measured in hospital wards and outpatient clinics. The economic implication of distance estimation is considerable as over 1.2 million people in the United Kingdom are in receipt of the higher rate component of the disability living allowance (currently £33.90 ($54.20) a week) (Department of Social Security, personal

Estimates of distance (in metres) by consultants and patients

Measured distance (metres)	Consultants (n=100)			Patients (n=100)		
	No of estimates	Median estimate (range)	Mean (SD) difference*	No of estimates	Median estimate (range)	Mean (SD) difference*
6.6	45	8.2 (64.9)	39.3 (10.15)	31	9.1 (87.8)	12.3 (24.2)
18.8	46	27.4 (260)	22.5 (42.2)	30	30.2 (175.6)	23.3 (36.3)
41.7	95	36.6 (449.9)	6.7 (50.8)	15	24.7 (448)	22.8 (111.2)
116	94	91.4 (401)	–4.3 (67.2)	10	64 (234.1)	–30.8 (76.1)
128	97	109.7 (478.2)	–1.3 (83.7)	62	150 (438)	24.3 (100.2)
319.1	94	274.3 (2909.6)	19.9 (343)†	58	402.3 (101.7)	133.8 (263.2)†

*Between estimated and measured distances.
†P=0.023.

communication). This allowance is paid to five categories of patients, including people who have difficulty in walking.[8] A person is eligible for this allowance on the basis of a self assessment questionnaire.[9]

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Births at Christmas are different: population based survey of 2 million deliveries

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The aim of the present study was to evaluate whether births occurring at Christmas are different from births taking place on other days of the year. We specifically wanted to test whether the pressure on the pregnant woman to have everything ready for the most important family feast of the year might increase her risk of premature labour. In Denmark, that feast takes place on the eve of 24 December..

Material and methods

For a previous study we obtained, from the Danish civil registration system, details of all births to women born between 1935 and 1978, including information on date of births, sex of children, and multiple births.[1] For the present study we added information from the Danish national birth registry on gestational age and whether delivery was by caesarean section. Preterm births were defined as those with a gestational age of less than 37 weeks. All 2 005 096 births in the period 1 January 1960 to 30 September 1994 were considered in the statistical analysis.

Results

The risk of giving birth on 24 December (Christmas Eve) in comparison to an average day of the year was reduced by 26% (observed = 4068, expected = 2 005 096 births/365.25days; O/E = 0.74, 95% confidence interval 0.72 to 0.76). Rates for the 3 days before Christmas Eve and the following 3 days were similar (0.84 and 0.76, respectively). This seemed to be due to

Characteristics of births in the week around Christmas Eve and on Christmas Eve compared with births on other days of the year

	Total No of births	Births in week around Christmas			Births at Christmas		
		No	Relative risk (95% CI)	P value	No	Relative risk (95% CI)	P value
Mother's age (years):							
12-19	14 817	2 604	1	<0.001*	379	1	<0.001*
20-24	69 098	10 878	0.89 (0.85 to 0.93)		1514	0.85 (0.76 to 0.95)	
25-29	742 103	10 766	0.83 (0.79 to 0.86)		1389	0.73 (0.66 to 0.82)	
30-34	324 185	4 799	0.84 (0.80 to 0.89)		618	0.75 (0.66 to 0.85)	
>34	90 893	1 387	0.87 (0.81 to 0.93)		168	0.73 (0.60 to 0.87)	
Parity:							
1	944 701	15 389	1	<0.001	2093	1	<0.001
2	733 170	10 236	0.86 (0.83 to 0.88)		1356	0.83 (0.78 to 0.89)	
⩾3	327 225	4 809	0.90 (0.87 to 0.93)		619	0.85 (0.78 to 0.93)	
Preterm delivery:							
No	757 952	11 523	1	<0.001	1454	1	<0.001
Yes	40 299	753	1.23 (1.14 to 1.33)		111	1.44 (1.18 to 1.74)	
Caesarean section:							
No	749 867	11 624	1	<0.001	1504	1	<0.001
Yes	101 914	1 372	0.87 (0.82 to 0.92)		145	0.71 (0.60 to 0.84)	
Sex of child:							
Boy	1 024 774	15 522	1	0.70	2075	1	0.94
Girl	976 646	14 828	1.00 (0.98 to 1.03)		1978	1.00 (0.94 to 1.07)	

*P for trend.