

I write in response to the article by Emyr Gravell in the Back pages of the *BJGP*, April 2004, 'How to save your marriage'.¹ I appreciate his humour, and many of his suggestions in the light of modern day general practice are perhaps quite reasonable. The marriage partnership, like general practice partnership is tough, and perhaps the government should be looking to control it in the same way that they are looking to control us as GPs. Why shouldn't those in partnership with each other be treated the same, whether the partnership be in marriage or with the NHS, as all of our relationships have an impact on society.

The article set me thinking about a talk I did recently, 'Building stronger relationships for a better community — what has this got to do with doctors?' Many GPs are probably quite unaware of the magnitude of the impact that family breakdown has on us both financially and on our daily workloads, even when we ourselves are happily married.

In preparation for the talk I discovered some most alarming statistics, many of which I wanted to brush under the carpet and forget, but, as in our consultations, unless we start to address the tough issues they just get larger. Many of them hit a personal note: we are not immune from relationship problems ourselves as GPs and perhaps even more prone as we take on others' burdens. I don't want to depress you, and in sharing some of what I have learned hope that we can start to see a way forward out of the mire. I also fully accept that I am biased and pro marriage.

Statistically it has been shown that couples who commit to each other in marriage are far more likely to stay together than those who choose to co-habit. This has automatic consequences on their children, in that unmarried parents are 4–5 times more likely to break up than those who have married (R Boheim and J Ermisch, Royal Economic Society Conference, Nottingham, 1999). By a child's fifth birthday, 8% of UK married parents have split up, compared to 52% of those who co-habit. Interestingly, 25% of those who marry after the birth of the child will also have split. Seventy per cent of UK children born to married parents in 1997 can expect to spend their entire childhood with both natural parents, compared to only 36% of children born to unmarried parents.² Although parents being married before the birth is of benefit to the child statistically (obviously in individual cases this may not be so), the success of marriages now is considerably less than it was half a century ago as divorce rates rise. Neither do statistics allow us to look at the benefit or not of remarriage.

Family breakdown affects people's health.

Whatever the level of deprivation in our practice we can start to relate to this. I thought about a recent surgery, 16 patients, a slightly less onerous than average morning. Six patients had depression, six physical problems, two came for medication reviews and there were two DNAs. I knew that family breakdown was a significant factor in the presentation of five out of six depressed patients and was relevant in at least one of those with a physical problem, also in one of the two who came for a medication review, and probably in both patients who didn't come. How different the morning could have been had relationships been intact, and how many more quality points I might have been able to earn in the allotted time!

Studies back up the feelings that we all naturally have. Mental health improves consistently after marriage and deteriorates substantially after divorce or separation. In most cases these are effects of marriage and divorce and not because healthy people marry and unhealthy people divorce. Even after taking demographic factors in to account, children from single parent households are twice as likely to be unhappy, have low self-esteem, or have mental health problems. Single mothers have poorer health than their married counterparts, even after taking demographics and socioeconomic factors into account.³

Less woolly statistics show that in the UK, divorced men aged 20–60 years have 70–100% higher mortality rates than the married, although women do somewhat better with only a 35–58% higher mortality rate.⁴ Mortality rates for co-habitees are the same as those of singles and divorcees. Sudden Infant Death Syndrome is three times more common among the offspring of co-habiting mothers and seven times more common among single mothers, as compared to married mothers.⁵ Child abuse is also far more likely without both married biological parents — six times in stepfamilies, 33 times when the mother has a live-in boyfriend, and 20 times even when both biological parents cohabit.⁶

We know that as doctors we have a poor record as far as alcohol misuse is concerned, which possibly stems from the difficulties in maintaining relationships while junior doctors. Divorced fathers are far more likely to engage in risky behaviour, including drugs, alcohol and unsafe sex, and divorce makes young people of either sex twice as likely to increase their drinking.⁷

Thinking as I prepared my talk about how to impact a bored group of doctors looking for CME, I started to look for a 'shock them' factor. I found it as I thought about their pockets. I speculated, if the average GP earns £70 000 a year (a debate in itself) how

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much does he/she contribute to putting right the costs of family breakdown?

We know that married men earn a 'wage premium' that rises from 10–40% over time in almost all developed countries. This gain equates to having a university degree.⁸ Also, 69% of UK single mothers are in the bottom 40% for household income (it is impossible to sift out from the statistics the differences between married and co-habiting here), compared to 34% of couples with children.⁹ UK single parents are eight times as likely to be out of work and 12 times as likely to receive income support.^{10,11} Children from broken homes are nine times more likely to become young offenders, accounting for 70% of all young offenders,¹² which costs the criminal justice and education systems.

In 2000 it was estimated that the direct cost to the government of family breakdown is at least £15 billion per year or £11 per week for every taxpayer.¹³ An accountant friend worked out that if we stick with the debateable figure of £70 000, acknowledging that it is no longer the year 2000, and that we are not average taxpayers, we contribute at least £35 a week to sorting out the problems of family breakdown, the major components of this going to paying for social benefits and welfare, the criminal justice system, extra costs of education, free prescriptions and lost productivity.

All this seems pretty miserable, I admit, but maybe there are ways forward. Maybe we should be starting to appraise our marriages, or a financial or tax incentive might surely be of benefit when we look at how much successful marriage saves our economy.

Back to Emyr Gravell's ideas. Although about supporting marriage, they are not just humorous but important. Communication in relationships is vital. When we look at problems in all areas of society, invariably a communication problem lies at the heart of it. In some towns and cities in Britain individuals are starting to set up Community Family Trusts,¹⁴ charitable organisations which are starting to work with registrars, religious organisations, health services, education authorities and debt services in order to provide a simple relationship education.^{15,16} This is a model that has started to work in certain parts of the US. Community Family Trusts are in their infancy in the UK, but already there are glimmers of hope. We recognise that marriage is hard work, but as statistics show, it is the building block of our society. As we watch the institution of marriage crumble around us it is no surprise that we are seeing the NHS, education and transport services crumble around us too. We need to start to act before it is too late.

Jenny Wilson

When I use a word ...

Mabs

The number of monoclonal antibodies with clinical uses is bewildering. I recently counted about 50, from abciximab to zolimomab aritox. Their names seem bewildering too, but are actually easy to decipher.

Modern international non-proprietary drug names have two parts. The suffix, or stem, tells you what group the drug belongs to, ideally chosen to reflect its pharmacological action. For instance, -vastatin denotes HMG Co-A reductase inhibitors (-stat- often being used for enzyme inhibitors); -lolol denotes β-blockers (but beware stanzolol); and -mycins are antibiotics. The prefix is chosen at will. It might reflect the structure or source of the drug (e.g. diclofenac, virginiamycin), the inventor's love of opera or the cinema (e.g. mimimycin, rifampicin; see *BMJ* 1999; **319**: 972), or just whimsy.

Now the monoclonal antibodies have a prefix and three substems. All, with one exception, end in -mab, for monoclonal antibody. The penultimate syllable (or substem) indicates the animal source and the prepenultimate syllable the target (Table 1). And the prefix (one or two syllables) is up for grabs.

Table 1. The components of the names of monoclonal antibodies.

Prepenultimate syllable (general target)	Prepenultimate syllable (tumour target)	Penultimate syllable (animal source)
-ba(c)- = bacterium	-co(l)- = colon	-a- = rat
-ci(r)- = cardiovascular	-go(t)- = gonad (testis)	-e- = hamster
-le(s)- = infectious lesions	-go(v)- = gonad (ovary)	-i- = primate
-li(m)- = immunomodulation	-ma(r)- = mammary	-o- = mouse
-vi(r)- = virus	-me(l)- = melanoma	-u- = human
	-pr(o)- = prostate	-abo- = rat-mouse hybrid
	-tu(m)- = tumour (unspecified)	-xi- = chimeric ^a
		-zu- = humanised ^a

^aDon't ask.

Finally, if the antibody is conjugated to a toxin an extra word is added; aritox, for example, denotes the A chain of ricin.

Let's try it. Abciximab can be parsed as follows: ab-ci-xi-mab. The -xi- denotes a chimeric antibody and the -ci- a cardiovascular target. Whoever named it was sleeping on the job — the target is actually the platelet. What about trastuzumab (Herceptin)? Well that's a humanised antibody (-zu-mab) that targets an unspecified tumour (-tu-). If you wanted to show that it targets the breast specifically, you could call it tramazumab.

Now play the game yourself. Imagine a chimeric monoclonal that targets syphilitic gummata; the stem would be -le-xi-mab. If it had six active domains, you might be tempted to call it sexileximab. I would.

Jeff Aronson