UNPLANNED PREGNANCY*

Mr. MICHAEL BRUDENELL, F.R.C.S., M.R.C.O.G.

DURING the past five years and especially since the passage of the Abortion Act in 1967, the problems associated with abortion have occupied a central position in public attention to medical matters. Every aspect of the unhappy process of terminating a pregnancy has been gone into in great detail. Emotion has often gripped whole sections of the population and religious and philosophical arguments have been as much in evidence as scientific reasoning. Societies for and against abortion have been active and their respective members have glared at one another through countless television interviews until one would have thought the population at large would have been heartily sick of them and the subject of their laboured protestations. Sick of them or not the diet has not varied in recent times and it seems that the modern fairytale story of the maiden ravished by the dragon having an argument with Dr. St. George over the cost of restoring her cycle to normal has an irresistible appeal. Why should it not indeed since it combines sex, sadism and a touch of professional villainy—essential ingredients of the successful modern novelle life is not only stranger in fiction, there is more of it and the abortion saga seems never ending.

The sad, but inescapable fact which seems in spite of its sadness and inescapability nevertheless to have escaped is that abortion is not the whole problem at all but only an unpleasant part of it, destined presumably because of its unpleasantness to take the limelight. The whole problem is of course unplanned pregnancy—recognise this fact and abortion sinks back into the perspective to which it belongs, namely the ambulance service to deal with casualties after the event with no part to play in the logical solution—prevention. No road traffic expert would set out to deal with the problem of road casualties by organising an efficient ambulance service, he would firstly set out to stop accidents occurring and then secondly to plan to deal with his failures. To equate this problem to that of unplanned pregnancy seems fair but in spite of this we struggle with a situation where abortion is in many ways more easily available than is contraception and sterilisation and this in spite of the fact that whatever their stance on abortion or methods of contraception everyone can see the logic of a woman not becoming pregnant unless she wants to have a baby.

The size of the problem

It is not easy to assess exactly how many of the pregnancies that do occur are unplanned, but a reasonable estimate can be made. There were approximately 64,000 illegitimate births (8.3 per cent of the total births) in England and Wales in 1970 and presumably these were all unplanned. In that year also there were 88,000 terminations of unplanned pregnancy. To these categories can be added a proportion of those pregnancies which result in a child being born within eight months of marriage, perhaps half of the total of 90,000. The most difficult addition to this list of unplanned pregnancies is the number of babies born to married women who already have a family. It is certain that many families are larger than the parents desired and it is probable that a very high proportion of fourth and subsequent babies are unplanned and result from a failure to

*Given at the Royal Army Medical College on 17 February 1970.

use adequate contraception. A figure of 100,000 would only be a guess but might be accepted for the sake of argument. The sum of unplanned pregnancies in England and Wales last year therefore reads:-

Illegitimate	64,000	Total unplanned babies born	209,000
Shotgun babies	45,000	Terminations	88,000
Unplanned legitimate babies	100,000	Total unplanned pregnancies	297,000

Total births in England and Wales in 1970 = 785,000 approximately

One other statistic is of interest, the excess of birth over death in England and Wales in 1970, that is the increase in the total population was approximately 210,000. So that by simply preventing unplanned pregnancy we would be well on the way to solving one of the most serious problems we face at the present time—that of over population. John Donne said “Any man’s death diminishes me because I am involved in mankind”. In 1971 nearly 400 years later it would be fair to say that ‘Any man’s birth diminishes me’. That much has changed, but the bell which tolled then is the same bell and in the same way it is tolling for us.

The home grown population explosion

The population problems faced by the United Kingdom on the whole at the present time seems to have escaped the majority of the inhabitants who regard overpopulation as a danger which threatens only remote developing countries and not their own fair land. In fact their own fair land is already one of the most densely populated countries in the world with a population density of one and half times that of India and three times that of China, countries which might come to the average mind as being overpopulated. Population projections are notoriously unreliable, but one estimate for the United Kingdom suggests a rate of increase rising from an average of 400,000 per annum in the 70’s to 700,000 in the 90’s, equivalent over the 30 year period to a population increase of 16 millions or 30 new major cities. A consideration of the present conditions of overcrowding in our existing cities emphasizes the problem which a population increase of this magnitude would pose.

The personal effects of overpopulation

At a personal level overpopulation means an unplanned pregnancy and the effect of such a pregnancy on the life of an unmarried girl or the mother of an existing family is all too familiar. The impact is greater at the two ends of the child bearing age group—the young teenager and the woman in her forties with a large or grown up family. Whatever the outcome—abortion or delivery, the mental and physical trauma is likely to be considerable with the memory of the event lasting long into the future. The misery is largely carried by the women and it is unfortunately true that the man concerned who must share equally in the responsibility of the pregnancy only carries a small share of the ill effects. In the case of the young unmarried girl the most usual response is for the man concerned to disclaim all responsibility and walk away leaving the girl to face the problem all on her own. Unfortunately some of the girls do not even tell their boyfriends that a pregnancy has occurred knowing what the response is likely to be. One of the sad facts of modern attitudes to sexuality is that women are much less protected against this sort of exploitation and many are really filling the role of unpaid prostitutes. Some sort of unmarried woman’s charter is needed to ensure that men who enjoy the advantages of

sexual freedom are not allowed to escape from its responsibility. This is not to suggest that a shotgun marriage should be forced upon a reluctant man, but he should at least give moral support to his pregnant girl friend during the course of the pregnancy and be responsible for seeing that she does not suffer materially. Unmarried girls having intercourse should always ask the man concerned beforehand:-

“Will you at least offer to marry me if I become pregnant?” many pregnant girls seem astonished to find that their beloved shows no inclination to make an honest woman of them.

“If I become pregnant and we decide not to get married will you help and support me whilst we work out a satisfactory solution?” A woman’s lib proposal for that sort of charter would surely command the support of all reasonable men and women.

The national effects of overpopulation

The problem of overpopulation at our own national level can be looked at from several points of view. To take only three topical aspects.

The level of social services and benefits. For a given financial outlay this is dependent upon the number of persons needing them. Illegitimate children and their unmarried mothers are a direct drain on the resources available and deprived children grow up to provide a high proportion of the delinquent and criminal element in society. Grand multipara, large unplanned families in overcrowded houses similarly throw a disproportionate burden on particular social services with a resultant lowering in level and standard of services generally available.

Unemployment. This is steadily rising in recent months but is not yet a measure of overpopulation. In the future however it seems likely because of technical advances and automation that a smaller number of men will be required to do jobs performed by larger numbers now. There must be a point where the proportion of men employed falls so low as to be uneconomic. Worker bees kill off drones but our hope must lie in having fewer overall numbers in the first place.

The motorcar. This is a symbol of modern man, it gives him independence, movement and easy transportation around his environment. Can this convenience survive in the face of increasing car density? Driving a car in London today suggests that the point is not far off when it will be quicker to get out and walk.

The global problem of overpopulation

The global problem of overpopulation is one of ecology—man’s relation to his environment. Much of the world’s population is already suffering from malnutrition and increasing food production is not keeping up with increasing demands for a world population which grows by 50 million every year. What is more attempts to put this situation right will in the end be self-defeating, because increased production of food and indeed increased production of everything that draws upon the natural resources of the world and alters the environment cannot be continued indefinitely. The life support systems of the spaceship earth however great are not unlimited and in time they will fail. At present the problem of pollution seems more urgent than simple depletion of the stocks and raw materials for modern man with his incredible ability as a waste maker is already altering the environment to a point where the balance is beginning to be disturbed. Paradoxically

the increase in production of manufactured goods which all countries strive for to raise their standard of living will in the end lower it and ultimately destroy it. There is a limit to the number of non-returnable mineral water bottles, plastic containers, radio active waste and all the other throw away bric-a-brac of modern life which we can absorb. When the limit will be reached is hard to judge but increasing world population at an uncontrolled rate without thought for its resources can only hasten the day, perhaps to a point in time within the foreseeable future. If the concept of the quality of life means anything steps must be taken to halt the increase in population if our children and certainly our grandchildren will live a life very much less full than we ourselves enjoy. Action must be taken before we disappear beneath a pile of discarded plastic containers.

Prevention of unplanned pregnancy

Population control could be achieved in some measure by preventing unplanned pregnancy. The benefits of this step on a personal basis and on a national basis in this country are clear. Furthermore the example of a developed country making a determined attempt to come to grips with its population problem might have a profound international effect. It is politically undesirable to advocate population control to other countries unless one is doing the same thing oneself. It is clear that a world as well as a national population policy will soon be needed, but for the immediate future attention to the problem of unplanned pregnancy is a move in the right direction.

Contraception

The idea of contraception has only comparatively recently become a public as opposed to a private concern. The contraceptive sheath and diaphragm do not have any glamour and have been almost unmentioned by the media and by the public except as subjects of dubious jokes. The pill with its suggestion of unlimited licence is much more attractive to the copywriters and has only recently escaped from the central spotlight. Even so any item of news concerning the pill especially its possible adverse side effects, the wages of sin—gets wide coverage. The intra-uterine device seems to have escaped with only comparatively little publicity. The impact of contraception on public discussion has therefore been very patchy, which is a great pity because the whys and wherefores of contraception desperately need to be brought to public attention especially to a younger generation, trapped by the disappearance of conventional morality to irresistible pre and extra marital activity. The need for contraceptive effort is best illustrated by the contraceptive practices of patients presenting themselves for a termination of pregnancy (Table I).

Why do half of these girls not take any contraceptive measures at all? The answer seems to lie in part in logistics and in part to human inertia. The supply of adequate contraceptive advice and equipment including the pill and the intra-uterine device is geographically patchy and qualitatively variable so that in some parts of the country couples are hard put to get contraceptive advice even if they overcome the inertia which seems to affect human beings where contraception is concerned. The problem of an unmarried teenager seeking contraception may be considerable outside the few special clinics which cater for her. If her general practitioner has strong moral feelings or knows her family well, her task may be very difficult indeed. Difficult, but not impossible this much is clear. A determined couple will get contraception if they really desire it by shop-

Table I
Three hundred unplanned pregnancies treated by termination

Method	Number	Per cent
No contraception	159	53
Unsatisfactory contraception—withdrawal, rhythm 'occasional' sheath or cap	79	26
Sheath	41	14
Cap	11	4
Intra-uterine device	4	1
Pill	2	0.5
Raped	3	1
No penetration	1	—

ping around. Even if this means merely that the boy visits the local barber shop to buy contraceptive sheaths at least contraception is to be had. Whether or not it is bad, depends on how strong the motivational drive towards contraception is. Herein lies the solution to the problem. Education which teaches the lesson that unplanned pregnancy is an unnecessary and shameful thing except as a result of a rare genuine contraceptive failure is badly needed, not only by the young in body, though here the need is most urgent, but in their elders whose years have not necessarily brought them the wisdom not to make the same mistake twice. Research into educational needs in this respect is very badly needed as has been shown by McEwan and Barnard (1970). In South London no local authority appeared to have a definite policy of sex education which was left to the discretion of individual head teachers with no real attempt at liaison or co-ordination. In spite of this when talks on family planning were given the pupils showed considerable interest in the subject and asked many intelligent questions.

Sterilisation

Modern methods of sterilisation entail no more than the division and ligation or diathermic coagulation of the fallopian tube or division and ligation of the vas deferens. Laparoscopic sterilisation entails a stay in hospital of no more than 48 hours. In the male, vasectomy can be performed on an outpatient basis under local anaesthesia. The morbidity in both sexes is small and the success rate virtually 100 per cent. In terms of patient satisfaction, providing the nature of the operation is explained to both partners beforehand, (sterilisation does not mean castration, sexual function is not interfered with, reversibility is a practical proposition if really essential, these are important points to make) the great majority of patients will be delighted to be relieved of worry about a future unplanned pregnancy. Restriction of the operation to older patients with large families is no longer justified and providing the request is not frivolous or ill judged, male or female sterilisation should be performed on request.

Abortion

The numbers of abortions performed has increased steadily since the introduction of the Abortion Act in 1968 and represents a reproach on the lack of contraception on the one hand and the refusal of womankind to accept an unplanned pregnancy on the other. It seems likely that the numbers of abortions will continue to rise for some years to come unless very strenuous efforts are made to spread the gospel and practice of contraception. The present level of approximately eleven abortions per hundred births

per annum in England and Wales is well below the levels reached in some countries, as in Hungary, where the level in 1970 was 127 abortions per 100 live births (at the Hungarian level there would be over a million abortions per annum in England and Wales). Hungary is an interesting example of the end result of using abortion as the main method of controlling unplanned pregnancy without at the same time developing contraceptive facilities. It is significant that Hungary like many of the Iron Curtain countries is now turning its attention to family planning and as a result the abortion rate is starting to fall. In this country we have the advantage of better developed existing contraceptive facilities and by building them up we may hope to avoid too sharp an escalation in the number of abortions although a steady rise may be expected for some years yet.

The present situation in regard to abortion in England and Wales

The 1968 Abortion Act was a political compromise and left the interpretation of its general provisions to individual doctors. The result has been a wide variation in the availability of abortion up and down the country, from virtually abortion on demand to virtually no abortion under any circumstances. The variations are the result mainly of the attitude of individual gynaecologists and partly of the existing facilities in hospitals for carrying out the operation. A growing number of gynaecologists are becoming converted to a more liberal approach. This change is most noticeable in the younger consultants and the registrars who appreciate better the wider problems of unplanned pregnancy in modern society and who are most conscious of the steady disappearance of the really bad septic backstreet abortion which were only too frequently to be seen in gynaecological wards before the Act but are disappearing wherever there is a liberal approach to termination. A changing attitude in nursing staff is also noticeable; providing they understand the reasons for doing terminations and know that a positive effort is being made by the hospital to reduce the number of terminations by a proper contraceptive approach they will tolerate what is often a considerable extra burden. The regular appearance of nurses themselves requesting termination and the existence of part-time married nurses who better appreciate the problem of unplanned pregnancy have been the factors which have increased the acceptability of the procedure to nurses generally.

As a result of a more liberal approach there are a larger number of experienced gynaecological abortionists. The suction curette, improved anaesthetic techniques and use of intra-amniotic injection of hypertonic saline have made the work of the "gynaecological abortionist" easier and as experience has increased the difficulties of the procedures have seemed less. It has always been realised that early abortion was better than late abortion. Very early abortion, that is abortion before the completion of the 8th week is even better and the recent introduction of a soft plastic cannula (Karmen curette) has enabled these very early abortions to be performed without general anaesthesia and on an outpatient basis. The unhappy phrase 'lunchtime' abortion has been applied to this procedure but it is to be condemned. The need to regard all abortions as operations needing careful pre-and postoperative care has been underlined by the work on this method at King's College Hospital. Apart from the technical problems posed by the method which requires the same care and skill as later terminations there is an overwhelming need to see that the patients are adequately provided with contraceptive care for the future and do not come to regard early abortion as a substitute for contraception.

The introduction of abortion by the use of prostaglandins has been investigated extensively in the past three years and there is no doubt that these substances used by various routes, intravenous, buccal, intravaginal and intra-uterine are highly successful in producing uterine contractions in the uterus, (Karim and Filshie, 1971). Prostaglandins are at present undergoing extensive toxicity trials and are not as yet freely available. There seems no doubt that they will become a major means of terminating pregnancy in the future, they might even provide the long awaited 'morning-after' pill which a woman could take to produce menstruation following unprotected intercourse. The morning after approach to the problem is attractive in theory but likely to be attended by considerable problems in practice. It is a poor substitute for planned contraception.

Mortality and morbidity in abortion

There is a growing realisation that a price has to be paid for abortion. The price is small in terms of mortality. Death following abortion seems quite often to have been avoidable being the result of poor technique, poor facilities or failure to recognise a particular patient as a bad risk. Postoperatively a slow recognition of complications especially haemorrhage or infection has caused some deaths and this too may be the result of poor facilities, inadequate nursing care or too early discharge of the patient. Some deaths especially those due to pulmonary embolism seem at present to be unavoidable. There has recently been a suggestion (Lancet, 1971) that the combination of termination and sterilisation might be more dangerous than termination alone followed at a later date by sterilisation. Once again controlled prospective studies are lacking and the advantage of combining termination with sterilisation are considerable in many patients. That is not to say that sterilisation should be a condition for doing a termination but for many patients the long term protection offered by sterilisation is in some ways more important than the short term benefits of a termination. (A patient who is uncertain about whether she wants a termination or a baby will often opt for the baby if she is offered puerperal tubal ligation). Although the cost of termination may be low in terms of mortality it may be higher than at present realised in terms of morbidity. Prospective studies are as yet lacking but post termination infection leading to blocked tubes is a definite entity as is post termination cervical incompetence causing the recurrent abortion. It is very important that an accurate assessment of the risks of termination is soon made because some patients would not request termination or even better still not get pregnant if they knew that the risks to their future childbearing capacity was appreciable. It would be ironic if the ultimate solution to the problem of overpopulation turned out to be post termination and post gonococcal tubal blockage!

The psychological sequelae of termination have been studied by a number of writers (Kay and Schapira 1967, Pare and Raven 1970). The vast majority of women did very well following a termination, not more than 15 per cent developing self reproach of a mild and transient nature. Psychiatric illness of more severe degree occurred in not more than 2 per cent of cases and was not necessarily connected with the termination. Increasing the availability of termination may well diminish the incidence of postoperative psychiatric disorder still further, having in consideration the bad psychiatric effects of criminal abortion or bearing an unwanted child which are the alternatives and which in themselves have adverse psychiatric effects. By contrast the other alternative—contraception—has few if any bad psychiatric effects, an obvious point in its favour.

One complication of termination is immunisation of the rhesus negative woman. Although it is an uncommon occurrence it can be almost entirely prevented by giving every rhesus negative woman having a termination a postoperative dose of Anti D gamma globulin. The recommended dose of Anti D gamma globulin is 50mg half the dose required by a woman delivered at full term.

The future

Once the fundamental nature of the problem of unplanned pregnancy is widely understood it should not be beyond the wit of man to prevent his own self-destruction. The need for action in all directions is urgent however if the consequences of the present rate of population increase are to be mitigated and the awful outcome of overpopulation of impossible degree to be avoided. The provision of contraceptive facilities on a wide scale through the medium of family planning clinics, but especially through the medium of hospitals and general practitioners is the obvious first step which is not at present being taken with anything like the vigour it needs. The free use of sterilisation, male and female and the uniform availability of abortion especially very early abortion where prevention fails are equally obvious and by no means impossible to achieve in developed countries like ours. But perhaps the most important step of all is a need to look at the philosophy of life which our children are developing. The sex drive is the strongest of all animal impulses; in the human it serves not only reproduction of the species, but is also an end in itself, a source of deep satisfaction of pleasure. We have got to learn to separate these two aspects and not to complicate pleasure by unplanned and unwanted conception. The problem is therefore one of education and in this context the giving of a sense of purpose and a meaning to life is the object of education in its widest sense. Young people have a fresh outlook on life and an ardent desire to make the world a better place. If we can persuade them from the outset that a responsible attitude to sex is essential for this purpose as well as being in their own best interest then the motivation essential to prevent unplanned pregnancies is established and the rest will follow. Young people have the imagination to see the danger of overpopulation and certainly have the most to fear from it, so that it is from them that the impetus to control reproduction should come. This must be the urgent aim of all involved in education which means not only teachers, but doctors and parents as well. The task is considerable but the penalty for failure is beyond belief. I quoted earlier from John Donne, let me finish with another quotation from the same author, a warning against man's present inactivity—" But I do nothing upon myself and yet I am mine own executioner ".

REFERENCES

- DAY, D. W. K. and SCHAPIRA, K. (1967). *Brit. med. J.* i, 299.
 KARIM, S. M. M. and FILSHIE, G. M. (1971). *Brit. med. J.* iii, 198.
 LANCET (1971). i, 979.
 MCEWAN, J. and BARNARD, D. (1970). *Towards an Educated Policy in Family Planning*. Family Planning Association. London.
 PARE, C. M. B. and RAVEN, H. (1970). *Lancet* i, 979.