

Reproductive health matters

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You do not need to be a psychologist to know that reproductive health plays an important role in society and that individual psychological, behavioural and social factors affect reproductive health and vice versa. What you may not know is that psychological research has shown that health education, willpower, planning and the opportunity to exercise health behaviours such as moderate alcohol and caffeine consumption, not smoking or taking drugs and maintaining a balanced diet, can lead to a healthy reproductive lifestyle, much like it affects general health. Health behaviours can also free people from unnecessary and preventable damage (e.g. unsafe abortions) or disease (e.g. sexually transmitted infections); from the potential psychological consequences of these (depression, guilt, stigma); contribute to early detection and treatment (e.g. breast or testicular cancer); and reduced time off work and utilization of the health care system (van den Akker, 2012). Clearly, reproductive health matters.

However, since many people do not know what affects reproductive health, they cannot all make informed decisions (Oluwatosin and van den Akker, 2012; Marshall, 2006). Access to and understanding of good reproductive health care advice, education and services is therefore necessary. There is a general lack of understanding about treatments for reproductive health problems too, and some treatments, such as that for infertility according to the media, have become akin to science fiction. Pioneer and adventurous users of these increasingly technologically advanced treatments do not use these in isolation –they live in a social world. Taking up treatments that cross many (un)natural boundaries should therefore come with a warning. *Do not do it unless you can cope with the effects.* Since impaired reproductive health and particularly involuntary childlessness and treatment with assisted conception using third parties can have severe and long lasting

psychological effects, it is in the interests of governments and practitioners to consider social, psychological and behavioural research evidence in debates, consultations, policy, legislation and practice. Inexplicably, this does not happen as a rule.

Reproductive health inequalities

Legislating, provisioning, educating and improving reproductive health effectively and incorporating psychological research, assessment and treatment, is even more complex in the developing world, where much disease relating to reproductive functioning is preventable. Trauma and distress due to reproductive ill health is common and psychological treatment and support is largely unavailable- leaving those suffering in the hands of traditional healing and rituals. Reports of hideously savage consequences of for example, infertility or miscarriage, are significant problems across the world, with women particularly known to be ostracised, socially stigmatised, isolated, maimed and even killed for reproductive 'incompetency' (Vayena et al, 2002). Issues of gender, poverty, cultural traditions, religious beliefs, lack of educational and health care infrastructures, preventable morbidity and mortality all contribute to unnecessary and unjustifiable reproductive health inequalities and unimaginable psychological scarring. Unfortunately, global health inequalities are difficult to eradicate, because good health infrastructures, transportation or electronic accessibility to remote areas and education all requires funding –not readily available in many parts of the world, making enactment of new or improved national policies difficult, but not impossible (Inhorn, 2012). Implementing behavioural change programmes or psychological support services for improved reproductive health and wellbeing and balancing that against other economic pressures is not the only difficult part; long term planning needs to consider the psychological impact too.

Reproductive health planning and cultural beliefs

Implementing national policies ideally requires a full understanding of the consequences drawing on relevant available research, which is not always the case.

The United Kingdom recently, legislated for anonymous mitochondrial¹ donation (HFEA, 2015). It is suggested that the amount of genetic material transferred in mitochondrial donation to the resultant child is considered to be minimal; therefore no information about the donor providing the mitochondria is necessary (PET, 2015). However, there is no reason to withhold health information from individuals no matter how small the expected third party contribution may be. It is a basic human right to have accurate information about one's health (Gomes de Andrade, 2010), particularly where medical intervention has brought the third party material into play, not a freak accident or a forgotten phone number after a night of unprotected sex. Research on other third party reproduction, such as surrogacy and gamete donation has demonstrated that anonymity about ones origins can affect the identity of the resultant children as they grow up (van den Akker, 2015). Third party assisted conception leads to new and complex interpretations of relatedness (Richards, 2014) which can have devastating psychological consequences for members of the new family in the long term. Useful culture specific psycho-social evidence concerning, for example, the importance of a genetic link, was largely ignored in recent legislation.

The disastrous long term effects of a very different kind of state intervention which did not tap into psychosocial factors either can be found in China. In 1980, a 1 child policy for people living in cities to reduce its overpopulation and inability to feed them all was introduced. The psycho-social, economic and human rights (and wrongs) effects of this policy on the population are known to have been substantial. People feared having a daughter, as cultural traditions dictate she would marry and help her husband's family into old age, whereas a son would work and care for them. The resultant consequences were not accurately predicted. They included selective feticide (killing of unborn foetuses) female infanticide (killing of new-born babies < 1 year old; Tyano et al, 2010); a subsequent unplanned and unbalanced male to female ratio; disabled children left abandoned to die inhumanely; and new unauthorized (second) births hidden from the authorities –affecting birth registrations. Abortion rates for policy and economic reasons have skyrocketed. In addition, China is left without a sufficient workforce to care for its growing ageing populations, and a

1. ¹ The nucleus of a cell has been metaphorically described as the factory's main office, the mitochondria its power plants and the ribosomes its manufacturing equipment (Miller, K.R.2008. *Only a theory: Evolution and the battle for America's Soul*. Viking, New York. P27.

more recent slackening of this policy, in recognition of this shortfall has not resulted in a substantial increase in parity. The psychological impact and long term effects of these desperate measures are not yet fully assessed, but guilt, depression and symptoms of post traumatic stress will haunt those who succumbed to these diabolical practices.

Health behaviours and attitudes

According to the Office of National Statistics a steady decrease in births and fertility from previous years is evident in the UK (ONS, 2014) and elsewhere too. Here, state reforms and economic austerity measures of the welfare system such as reductions in housing benefit and room sharing played a part, though much more subtly than in China. Total Fertility Rates are also decreasing and the average age of mothers has increased to 30.0 years, compared with 29.8 years in 2012. These national statistics reflect behavioural changes and lifestyle choices and attitudes towards competing interests (Galinsky et al, 2011) such as improving finances, employment prospects, career choices, housing situations versus family building and spending a fortune on child care. Governments need to react to the lifestyle and attitude shifts they have encouraged, because biologically time runs out and more and more people will need treatment if this important life goal is still to be achieved. Survey evidence from young educated, professional Western populations shows the desire to build a family in addition to achieving life goals is not abating (Johnson and Tough, 2012).

Choice and the context

Other social issues including a decline in childbearing within marriage and an increase in people remaining single and lesbian and gay partnerships affect and limit reproductive 'choices' and contribute in turn to the changing fertility rates. The decreasing or impossible fertility prospects for people due to psychological or social factors means many more people now require and seek assisted conception services to help build their families (Richards, 2014). Furthermore, the choice is also limited by the fact that building a family using assisted conception is not as easy as it sounds; it is notoriously unsuccessful, can be associated with stigma, uncertainty, medicalised conception, brings a third party into the process and can lead to substantial psychological distress and disappointment (Johansson et al, 2011). In addition to these psychological costs, it can also be financially expensive.

In some parts of the UK, health care resources fund assisted conception treatment and in areas where this is not the case, health inequalities determine who has and does not have treatment to overcome involuntary childlessness, again impacting upon 'choices'. This seems at odds with the fact that lifestyle choices interact with national drives encouraging educational, employment, home ownership opportunities, and changes in policy on gay marriage and so on -thereby playing a role in the need for treatment. Internationally, research has shown that white, middle class, heterosexual couples are more likely than non white couples to have used assisted conception (Culley, Hudson and van Rooij, 2012); a double whammy for those likely to be less educated, less employed and less likely to have a treatment to have a family because they cannot pay. Where treatment opportunities are not possible, psychological support is necessary, although this is still not catered for in most countries across the world and not addressed adequately in substantive reports on inter/national guidelines and best practices (Lunenfeld and van Stierteghem, 2004).

Medically recognised infertility includes being born without, with incomplete or with malfunctioning reproductive organs or systems, or it can be caused by disease (e.g. childhood mumps), treatment for disease (e.g. treatment for cancer), accident or injury and affects about 10% of the population world-wide. Because infertility is associated with stigma or incompleteness, and challenges culturally determined notions of femininity and masculinity it is unsurprising that people are not aware that it is globally interpreted as one of the greatest life stressors (Cousineau and Domar, 2007; Resolve, 2015). Numerous increasingly sophisticated treatments are available giving people opportunities they could not have dreamt up a few decades ago. Nevertheless, some of these are associated with substantial risks at medical, public, social and private levels (Mathur, 2015), again limiting apparent 'choices'. Preventing risk factors for infertility should therefore be a world-wide educational priority and accessibility to treatment should be a local priority. Unfortunately, research funding is not proportionally allocated to this area of health.

Risks of treatment

In addition to dealing with the emotional turmoil associated with a diagnosis of infertility or involuntary childlessness, most treatments are technologically complex

and personally invasive, requiring new psychological adjustments. Increasingly sophisticated techniques such as intra cytoplasmic sperm injection, prenatal genetic diagnosis and the use of donated gametes, surrogates, frozen embryos and more recently mitochondrial donation, result in increasing uncertainty of the long term physical, genetic, and cognitive / mental health of the children resulting from these treatments (Mathur, 2015). Cognitive dissonance and cognitive restructuring of what kinship, motherhood and fatherhood means, is also necessary (Strathern, 2005), although this does not usually happen until after treatment is initiated. There is a professional, ethical and moral obligation across disciplines to ensure the welfare of all parties involved is protected and assured prior to or at the time of treatment initiation (van den Akker, 2013). However, few studies report on the psychological, behavioural and social risks associated with them.

The international market

Biopower, which refers to the practice of modern political systems to regulate and control populations via modern medical techniques –including public health regulation and heredity (Foucault, 1998), has become increasingly relevant in reproductive health. A new kind of bio-power is also in the hands of sufficiently wealthy infertile couples and gay, lesbian and single men and women of all ages who can afford it. As with quests for new teeth, enhanced body parts or improved appearances, individuals pay for alterations the NHS does not cater for. The savvy health care shopper goes abroad tagging a holiday on to the procedure at a fraction of the price. The international market in fertility treatment, gamete donation and surrogacy is now a multi-million dollar industry. Surprisingly, the ethics of international baby buying is rarely addressed (Qadeer, 2010) despite known cases of child trafficking and paedophile users of these internationally accessed services. Other ethical concerns include the discrepancy between male and female infant births, illegal abortions for sex selection and the exploitation of surrogate mothers. Surrogate mothers in developing countries, for example, are not always giving informed consent, they undergo chemical abortions for which they were not fully prepared, they are paid minimal fees, between 6% and 26% of commissioning parents will not take a child born with abnormalities; buy one get one free packages apply if foreign couples use 2 surrogates, and some surrogates are removed from their families to prevent STI's and to prevent the 'stigma' in their local communities of

surrogacy (CSR, 2013). The psychological consequences for all parties concerned are only just being addressed in research, but you do need to wonder, how is this possible in the 21st century? These are not accidents of nature but new and thriving businesses encouraging people to exploit each other.

The consequences

Although most of us understand the strong desire some people feel to have children, and indeed evidence suggests not fulfilling this life goal affects well-being well into late life (Hansen et al, 2009), this should be balanced in conjunction with the best interest for the child. Unregulated treatment is not designed to be in the interests of any child conceived for the sole purpose of meeting the specifications of the commissioning parent(s) at a negotiated price. Because international laws differ, and UK law on birth registration is not aligned in the same way as, for example, Indian law is, new parents commissioning gametes or surrogate babies via India can find they have a baby they cannot legally call their own and cannot give it British nationality. Because of legal loopholes, it is not possible to accurately predict the number of parental order reports made for surrogate babies brought into the UK (Crawshaw et al, 2012), and legal parenthood is not officially registered. Having children regardless of how they came about, should be a positive experience involving private certainty and public understanding and recognition that the best interests of the child were paramount. This is not always the case.

Much previous research has reported there are no adverse outcomes for children born from third party assisted conception, although there are exceptions. Higher levels of adjustment problems are noted in children conceived via surrogacy, but not in children conceived using gamete donation (Golombok et al, 2012). The authors suggest this can be due to the lack of a gestational link or an awareness of their conception, and children may feel less secure when faced with their mothers' emotional problems. Numerous other adverse and unanticipated consequences are reported. It is telling that people conceived via scientific developments which helped create them, are now in turn, using science to find genetic relatives (van den Akker et al, 2015). Normative concepts of relatedness and kinship are challenged and these are not yet adequately addressed in research, policy or practice.

Family and kinship shifts

The study of kinship of families created using third party assisted conception has mostly focused on the treatment of the parents seeking the treatment rather than the kin relationships once the new family exists (Carsten, 2004). This is again too late. How we define family and what it means to be in a family are all areas that influence how we see and define ourselves. Third party reproduction mimics familiar, and creates new family forms which is great as long as there is no mystery or shame attached to that, and we accept them as they are. Discourses of resemblance and similarity described many decades ago continue to pervade peoples' ideas of biogenetic relations, and any 'outside' or third party biological or genetic input is hidden or marginalised. It is a bit like saying to someone, only your fathers genetic input is important, not the part provided by your mother. This does not make sense and is not done in new socially constructed step families, where the previous partners' contribution is usually highlighted to explain differences between the children.

A key theme in current debates over kinship in reproductive technologies is the place of the biogenetic relationship and how it is 'choreographed' where disclosure has taken place (Thompson, 2005). For example, in Vietnam, like India, limited education about genetics is available, leaving couples using or providing gamete donation or surrogacy with culture bound beliefs that a birth mother is the 'real' mother of the child (Hibino, 2015). In many Western cultures, genetic parenthood is seen to be the determinant of parenthood, even if governments (e.g. the UK) register births to birth mothers automatically. Levine (2008) argues that kinship models created by non-traditional families use conventional as well as radical ideas to reference biogenetic connections. This is evidenced in research where people coped with cognitive dissonance of the biogenetic distance with the child by cognitively restructuring new interpretations of third party assisted conception families (van den Akker, 2007). In order to do this effectively, accurate health information and education is necessary at a global level.

Summary

I have tried to show that the interaction between reproductive health and regional, governmental, economic, cultural, social and psychological factors, is complex.

Reproductive health inequalities are rife and gender inequalities particularly are responsible for much unjustifiable harm. Internationally, family building using donated gametes, mitochondria or a borrowed or 'leased' uterus from a third party is set to be increasingly used now that some countries benefit economically from the industry, and leads to changes in the genetic footprint and / or gestational environment of new generations. Research on the psychological effects and consequences of these modes of family building, of kinship and identity is only scratching the surface. Treatments using these advances in technology and medicine are brought to society via government policy, and they have implications at economic, cultural, social and psychological levels. However, research, policy and practice do not always work well together in matters concerning reproductive health. Reproductive healthcare services need to reflect the specific and lifetime shifting needs of the populations it serves and not only predict but support the psychological effects and psycho-social consequences. True globalisation requires a more harmonious interaction between scientific research, technological innovation, policy and practices, but this cannot be done until world-wide inequalities are tackled first.

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