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The SABPP Women's Report 2014: Work and women's reproductive health

Anita Bosch (Editor) Published: August 2014



Setting HR standards

South African Board for People Practices (SABPP)

Women's Report 2014

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The SABPP Women's Report 2014 Work and women's reproductive health

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Foreword

As the editor of the SABPP Women's Report, I marvel at the range of topics that intersect and have an impact on the participation of women in the South African workplace. The topic of work and women's reproductive health remains current. When one recognises embodied cognition, a philosophical stance that states that the body influences the mind, it becomes clear that women's bodies and their unique reproductive functioning are inextricably woven into being a woman – whether at work and when making career-related decisions. Reproductive health has an impact on women's careers, even if they choose not to have children. It is precisely for this reason that the 2014 Women's Report contains chapters that cover topics related to reproduction and childcare.

Dr Merwyn Jacobson, founding partner of Vitalab, a medical centre for assisted conception, introduces ways of understanding and preserving women's fertility, and expands on the various assisted conception options presently available to women. A specialist in reproductive medicine, Dr Jacobson clarifies which options women are able to access when they consider delaying pregnancy for career- or workplace reasons. He issues a clear warning that a woman's fertility declines at an alarming rate post 35 years of age, despite the sophistication of medical technology available to them. The factual information in the chapter provides empowering alternatives and advice to women who have already delayed pregnancy or are considering postponing having children.

In supplementation of Dr Jacobson's chapter, Bernice Lits and Tanya Rubin's chapter expands on the options and processes available to women who choose to become single mothers by giving birth to children. Career women often deal with the dilemma of not being married or in a permanent relationship with a man, but would like to have a child of their own. The psychological processes and choices available to these women are outlined in the second chapter.

UNAids estimates that 56%¹ of the HIV/Aids-infected population of South Africa are women. The topic of HIV/ Aids is therefore imperative when writing about women's reproduction and pregnancy. Jenni Gobind explains why HR practitioners should be well informed of the myths that surround HIV/Aids, in order to better manage their processes and policies in relation to pregnancy in the workplace.

Women cannot make smart choices about their reproductive health and careers without considering the long-term implications of nursing babies and raising children. Monica Badenhorst, a nursing sister, expands on breastfeeding in the workplace, and how HR practitioners can create an accepting and enabling environment for women to continue breastfeeding their babies after maternity leave. She provides factual information to empower HR practitioners to make a case for breastfeeding facilities and policies in workplaces. She furthermore outlines good practice breastfeeding guidelines that will enable practitioners to establish excellent breastfeeding programmes in organisations.

The chapter by Dr Linda Biersteker, an early childhood development specialist responsible for leading research at the Early Learning Resource Unit (ELRU), is a gem for HR practitioners who are searching for information and statistics regarding the state of early childhood development programmes in South Africa. She includes a table with which HR practitioners can evaluate different types of workplace early childhood support mechanisms when considering how to proceed in establishing early childhood support structures at organisations.

 $^{1 \}quad \textit{UNAids 2012 statistics for South Africa at http://www.unaids.org/en/regions countries/countries/southafrica/properties/southafric$

The SABPP Women's Report 2014 is integrated through Chapter 1 of this year's report. In this chapter I explain why women's reproduction and resulting childcare responsibilities are often categorised in the workplace as 'other' from the male/disembodied norm. I trust that the 2014 Women's Report will enable women to make more informed life- and career choices, and also provide HR practitioners with good practice guidelines and practical information, which should empower practitioners to create workplaces that embrace human reproduction as a function of normal societal life.

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CHAPTER ONE

Women's reproductive options: Career- and HR implications

Anita Bosch

Women are not enabled to participate equally in the workplace. Traditional workplace assumptions, such as place of work, working hours, availability to tend to work, and the structure of work, are all based on assumptions about the 'ideal worker.' The ideal worker is somebody who is available 24/7 without having to attend to people outside of the work context, and is therefore usually disembodied¹ - a human being who is much like a machine. The machinelike assumptions about human beings originate from the model of working men who have wives who do not work and who take care of their children and the household.

Whilst I acknowledge that the current structure of the workplace reduces men to machines, the focus of this chapter is on the fact that women are measured against the very same norm — a norm that can more easily be applied to men, but is ill-suited to women. Women, through their unique biological functioning of reproduction and pregnancy, when measured against the ideal-worker norm, are consistently regarded as 'off-norm,' not ideal, and cases requiring special accommodation.

It is a fact that women are biologically different from men. Their reproductive functioning and outcomes distinguish them from men in physiological and social ways. The culture in which we are raised and the prevailing family culture globally shapes women's and men's views around reproduction in particular ways.² Globally, "parenthood equals normalcy for people in their

middle years."3 Whilst it might be easy to believe that contraception has provided women with greater levels of agency regarding their bodies and reproductive rights. there are numerous social processes that reinforce the opposite message: women should have children, and their male partners (and their families) have the right to demand of them to produce offspring. Some of these social processes include religious beliefs, linage regarding a man's family name, and having children who should provide for old-age care of parents. A lot of the social pressure to have larger families resides with men who are made to believe that they have to procreate in order to be socially accepted as a 'real man.' Yet, women worldwide are moving towards a preference for smaller families ⁴ The rationale seems clear – a smaller family means that the mean income per member of the family unit rises; more resources, including time, are available for each member of the family, and women are able to pursue their own non-caregiving interests to a greater extent, including having a career and doing paid-work. Those who participate economically in paid-work are empowered to make decisions about their lives, families, and future. Workplace participation and women's economic empowerment are therefore inextricably woven into biological and sociocultural functioning.

The majority of South African men and women enter the workplace at post-schooling age, starting from 18 years onwards, and women can therefore spend approximately 18 of their most fertile years, up to the age of 35, working. Because the workplace is structured to accommodate the disembodied/male norm, women in developed countries have begun distancing themselves from pregnancy, with birth rates falling for all population groups in the USA from 2007-2009, with the largest declines evident in women in their peak childbearing years⁵ and the well-documented number of

Lewis, S. & Humbert, A.L. (2010). Discourse or reality? "Work-life balance", flexible working policies and the gendered organization. Equality, Diversity and Inclusion: An International Journal, 29(3), pp. 239-254.

Isiugo-Abanihe, U.C. (1994). Reproductive motivation and family-size among Nigerian men. Studies in family planning. 25(3), pp. 149-161.

³ Becker, G. (2000). The elusive embryo: How women and men approach new reproductive technologies. California: University of California Press.

Goldstein, J., Lutz, W., & Testa, M.R. (2003). The emergence of sub-replacement family size ideals in Europe. Population Research and Policy Review. 22, pp. 479-496.

⁵ Sutton, P.D., Hamiton, B.E. & Mathews, T.J. (2011). Recent decline in births in the United States, 2007-2009. Centers for Disease Control and Prevention's National Center for Health Statistics, Division of Vital Statistics, Reproductive Statistics Branch, NCHS data brief- europepmc.org.

decades of low birth rates in Europe.⁶ Many women are delaying pregnancy in order to first build their careers, as a consequence of not being able to participate in an equal manner in the workplace. For some, the delay has resulted in not being able to have children later on, which causes gender-identity confusion⁷, psychological distress, and resentment.

Medical technology

Medical technology has developed to such an extent that there are more options for women to consider, which might impact their careers and economic participation differently. When women are primed about these technologies, they can make informed choices regarding starting with a family or not at all.

Though it is clear that medical technology is neither infallible nor a magic cure for infertility, 8 medical reproductive technologies open up possibilities for women to do career planning, which includes planning around pregnancy and general wellness. Take, for instance, fertility preservation techniques such as embryo cryopreservation⁹ (where an embryo is frozen and preserved for implantation into the woman at a later stage) and oocyte preservation¹⁰ (where a woman's eggs are harvested and frozen in order to be fertilised and implanted at a later stage). Both these technologies show promise in providing an alternative to women considering delaying pregnancy. Since a woman's fertility declines by half between her 20s and 30s11, career women should be well informed that they could potentially increase the likelihood of pregnancy at a later stage by utilising these technologies.

General wellness, such as minimising stress levels, 12 reducing alcohol and caffeine intake, refraining from smoking, and maintaining overall bodily fitness also plays a major part in a woman's ability to conceive, and also her ability to remain productive at work. One

in every four women and one in every three men in South Africa will develop heart disease by the age of 60.13 Since women's heart attack symptoms present differently from those of men, notably with the absence of chest pain, heart attacks are often not detected in time in women.14

Raising children

Once a woman is pregnant, she has to consider how the child will be cared for. Research is not conclusive on the effects of mother-child separation during early childhood, or on whether the mother's presence or that of a loving care giver is essential for raising stable children. Placing the responsibility of childcare predominantly on a mother limits her work and economic options. Very few husbands make the decision to stay at home to raise their children, and the incentive to do so seems to be driven by greater economic opportunities for their wives. 15 In addition, many men might prefer to be stayat-home fathers, but society does not accommodate these men sufficiently.16 However, the stay-at-homefather phenomenon is said to have a positive effect on gender relations, and might be the tipping point for gender equality in the workplace.¹⁷

Infant care includes the option of breastfeeding, which is often not possible once a woman returns to the workplace from maternity leave. ¹⁸ Early childhood care in South Africa is, furthermore, a minefield, with very few formal and stable arrangements provided for by the state or employers. ¹⁹ This leaves families, especially the women, to deal with childcare whilst at the same time continuing with their work — a situation that clearly does not create a level playing field for women in the workplace. It is therefore imperative that organisational leaders recognise that the inclusion of women in the workplace relies, in part, on the support by organisations of families with children.

⁶ Lutz, W., Skirbekk, V. & Testa, M.R. (2006). The low-fertility trap hypothesis: Forces that may lead to further postponement and fewer births in Europe. Vienna Yearbook of Population Research: Postponement of childbearing in Europe, 4, pp. 147, 192

⁷ Becker, G. (2000). The elusive embryo: How women and men approach new reproductive technologies. California: University of California Press.

Jacobson, M. (2014). Women's fertility and work. In A. Bosch (Ed.). South African Board for People Practices Women's Report 2014. Parktown, South Africa: SABPP.

⁹ Jacobson, M. (2014). Women's fertility and work. In A. Bosch (Ed.). South African Board for People Practices Women's Report 2014. Parktown, South Africa: SABPP.

¹⁰ Jacobson, M. (2014). Women's fertility and work. In A. Bosch (Ed.). South African Board for People Practices Women's Report 2014. Parktown, South Africa: SABPP.

¹¹ Jacobson, M. (2014). Women's fertility and work. In A. Bosch (Ed.). South African Board for People Practices Women's Report 2014. Parktown, South Africa: SABPP.

¹² http://www.cdc.gov/niosh/updates/womrisk.html; https://gupea.ub.gu.se/bitstream/2077/17726/1/gupea_2077_17726_1.pdf

¹³ http://www.health24.com/Medical/Heart

¹⁴ http://www.health24.com/Medical/Heart

¹⁵ Chesley, N. (2011). Stay-at-home fathers and breadwinning mothers. Gender and Society. 25(5), pp. 642-664.

¹⁶ Rochlen, A.B., McKelley, Ryan, R.A., & Whittaker, T.A. [2010]. Stay-at-home fathers' reasons for entering the role and stigma experiences: A preliminary report. Psychology of Men & Masculinity. 11(4), pp. 279-285.

¹⁷ Chesley, N. (2011). Stay-at-home fathers and breadwinning mothers. Gender and Society. 25(5), pp. 642-664.

¹⁸ Badenhorst, M. (2014). Breastfeeding at work. In A. Bosch (Ed.). South African Board for People Practices Women's Report 2014. Parktown, South Africa: SABPP.

¹⁹ Biersteker, L. (2014). Childcare in South Africa. In A. Bosch (Ed.). South African Board for People Practices Women's Report 2014. Parktown, South Africa: SABPP.

Biersteker²⁰ provides very interesting alternatives and options for HR practitioners to consider in meeting this important social obligation.

Conclusion

Human reproduction and children are a fact of life, and it is time that this phenomenon is recognised by organisations. Adopting an attitude that this phenomenon is to be relegated to the privacy of homes and families continues to reinforce women's workplace exclusion. HR practitioners with an interest in gender equality should be well informed regarding the facts, in order to debunk myths with regards to human reproduction and childcare. This is precisely what the Women's Report of 2014 aims to achieve.

²⁰ Biersteker, L. (2014). Childcare in South Africa. In A. Bosch (Ed.). South African Board for People Practices Women's Report 2014. Parktown, South Africa: SABPP.

CHAPTER TWO

Women's fertility and work

Merwyn Jacobson

Introduction

While women should not be bullied into having children if they do not want them or do not feel ready, they should be under no illusion about their biological fitness diminishing with age. Unfortunately, this basic fact and its timing are not well known and understood. The limited academic literature that has investigated women's, and men's, knowledge of agerelated infertility all points to the need for education about the absolute and relative risks and benefits of waiting until one is older to have children.

Delayed motherhood is associated with higher female career achievement in both cross-sectional and time-series comparisons. Women delaying having children has been increasing concurrently with female education, labour force participation, and earnings in Europe since 1960³ and in the United States since the post-war babyboom⁴ Hofferth⁵ noted the cross-sectional correlation almost two decades ago in data from the 1976 Panel Study of Income Dynamics (PSID). Women who bore their first child after age 30 enjoyed higher wage rates, and accumulated more wealth by age 60 than earlier child-bearers and childless women.

Over the past several decades, demographic and socioeconomic trends have resulted in an increase in the number of women seeking pregnancy in their late 30s and early to mid-40s. In addition, a significant number of women in this age group are seeking evaluation and treatment for infertility. Although there is a well-demonstrated decline in female fertility as a function of age, this phenomenon has typically been under-recognised, not only by the general population, but also by many health care providers. This is probably related to the fact that, in previous decades, women generally had completed childbearing by the late 30s and, in fact, many of the pregnancies that occurred in the later reproductive years were unplanned.

- 1 Everywoman, J. (2013). Cassandra's prophecy: Why we need to tell the women of the future about age-related fertility decline and 'delayed' childbearing. Reprod. Biomed. Online. 27, pp. 4–10. Johnson, M.H. & Franklin, S. (2013). A patient perspective. Reprod. Biomed. Online. 27, pp. 1–3.
- 2 Bretherick, K.L., Fairbrother, N., Avila, L., Harbord, S.H.A., Robinson, W.P. (2010). Fertility and aging: Do reproductive-aged Canadian women know what they need to know? Fertil. Steril. 93, pp. 2162–2168. Cooke, A., Mills, T.A., Lavender, T. (2010). Informed and uninformed decision making-Women's reasoning, experiences and perceptions with regard to advanced maternal age and delayed childbearing: a meta-synthesis. Int. J. Nurs. Stud. 47, pp. 1317–1329.

Daly, I. (2011). Explaining the trend towards older first time mothers – A life course perspective. In: Ebtehaj F, Herring J, Johnson MH, Richards M (Eds). Birth Rites and Rights. Oxford: Hart; pp. 255–270.

Daniluk, J.C. & Koert, E. (2013). The other side of the fertility coin: a comparison of childless men's and women's knowledge of fertility and assisted reproductive technology. Fertil. Steril. 99, pp. 839–846.

Daniluk, J.C., Koert, E., & Cheung, A. (2012). Childless women's knowledge of fertility and assisted human reproduction: Identifying the gaps. Fertil. Steril. 97, pp. 420-426.

Lampi, E. (2006). The Personal and General Risks of Age-related Female Infertility: Is There an Optimistic Bias or Not? Working Papers in Economics (online), vol. 231. Retrieved from: http://www.frisch.uio.no/firstnordic/Lampi-paper.pdf.

Lampic, C., Svanberg, A.S., Karlström, P. & Tydén, T. (2006). Fertility awareness, intentions concerning childbearing, and attitudes towards parenthood among female and male academics. Hum. Reprod. 21, pp. 558–564.

Maheshwari, A., Porter, M., Shetty, A., & Bhattacharya, S. (2008). Women's awareness and perceptions of delay in childbearing. Fertil. Steril. 90, pp. 1036–1042.

Peterson, B.D., Pirritano, M., Tucker, L., & Lampic, C. (2012). Fertility awareness and parenting attitudes among American male and female undergraduate university students. Hum. Reprod. 27, pp. 1375–1382. Schmidt, L. (2010). Should men and women be encouraged to start childbearing at a younger age? Expert Rev. Obstet. and Gynaecol. 5, pp. 145–147.

- 3 Gustafsson, S. (2001). Optimal Age at Motherhood: Theoretical and Empirical Considerations on Postponement of Maternity in Europe. Journal of Population Economics, 14, pp. 225-247.
- 4 Chen, R, & Morgan, S.P. (1991). Recent trends in the timing of first births in the United States. Demography, 4, pp. 513-533.
 - Caucutt, E., Nezih, G. & Knowles, J. (2002). Why do women wait? Matching, wage inequality, and the incentives for fertility delay. Review of Economic Dynamics, 5, pp. 815-855.
- 5 Hofferth, S. (1984). Long-term economic consequences for women of delayed childbearing and reduced family size. Demography, 21, pp. 141-155.
- Chen, R, & Morgan, S.P. (1991). Recent trends in the timing of first births in the United States. Demography, 4, pp. 513-533.

Caucutt, E., Nezih, G. & Knowles, J. (2002). Why do women wait? Matching, wage inequality, and the incentives for fertility delay. Review of Economic Dynamics, 5, pp. 815-855.

Hofferth, S. (1984). Long-term economic consequences for women of delayed childbearing and reduced family size. Demography, 21, pp. 141-155.

Basic physiology

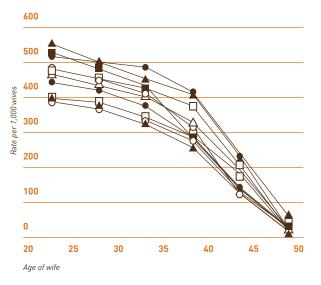
All the eggs a woman will ever have are formed while she herself is in her mother's womb. They fall in number, with only the tiniest proportion making it to ovulation, and diminish in quality as they age over the decades. At birth, girls have already lost most of their eggs, but have approximately one million left. At menarche (their first menstrual period) they have about 250 000 eggs, and these continue to decline with the decline from birth accelerating from 35 years of age to menopause. We know this from a huge range of biological, historical, and social science data. Twenge argues that much human fertility data is irrelevant, as it comes from a time before "antibiotics and electricity." Some recent fertility research models use data collected from a variety of settings, including 17th century French parish registers.7 These historical data from large populations in the pre-contraception era form just one useful piece of the puzzle, illustrating 'natural' fertility patterns.

The influence of age on fertility

Fertility is defined as the capacity to produce a child. Whereas the likelihood of conception remains relatively stable from cycle to cycle within individuals, it generally is highest in the first months of unprotected intercourse or exposure to sperm, and declines gradually thereafter in the population as a whole. Approximately 80% of couples will conceive in the first six months of attempting pregnancy. Monthly fecundability (the probability of pregnancy per month) is greatest in the first three months of trying to achieve pregnancy. Relative fertility is decreased by about half among women in their late 30s, compared with women in their early 20s.

Fertility varies among populations, and declines with age in both men and women, but the effects of age are much more pronounced in women. Figure 1 illustrates the sharp decline in fertility rates for women as age increases. For women, the chance of conception decreases significantly after age 35.11 Although semen parameters in men also decline detectably after 35 years of age, male fertility does not appear to be affected before approximately age 50.12

Figure 1: Decline in fertility rates in women¹³



Marital fertility rates by 5-year age groups. The ten populations (in descending order at age 20–24 years) are Hutterites, marriages in 1921–1930 (.); Geneva bourgeoisie, husbands born 1600–1649 (.); Canada, marriages in 1700–1730 (C); Normandy marriages in 1760–17790 (B); Hutterites, marriages before 1921 (.); Tunis, marriages of Europeans 1840–1859 (6); Normandy, marriages in 1674–1742 (C); Norway, marriages in 1874–1876 (.); Iran, village marriages in 1940–1950 (.); Geneva bourgeoisie, husbands born before 1600 (B). From Menken J, Trussell J, Larsen U. Age and fertility. Science 1886;233:1389–94. Reprinted with permission from AAAS.

Practice Committee. Committee Opinion No. 589. Fertil Steril 2014.

⁷ Leridon H. (2007). Can assisted reproduction technology compensate for the natural decline in fertility with age? A model assessment. Human Reproduction, 17 June 2007

⁸ Gnoth, C., Godehardt, D., Godehardt, E., Frank-Herrmann, P., & Freundl, G. (2003). Time to pregnancy: Results of the German prospective study and impact on the management of infertility. Hum Reprod. 18, pp. 1959–1966.

⁹ Howe, G., Westhoff, C., Vessey, M., & Yeates D. (1985). Effects of age, cigarette smoking, and other factors on fertility: Findings in a large prospective study. BMJ. 290, pp. 1697–1700.

Dunson, D.B., Baird, D.D., & Colombo, B. (2004). Increased infertility with age in men and women. Am J Obstet Gynecol. 103, pp. 51–56.

¹⁰ Howe, G., Westhoff, C., Vessey, M., & Yeates D. (1985). Effects of age, cigarette smoking, and other factors on fertility: Findings in a large prospective study. BMJ. 290, pp. 1697–1700.

Larsen, U., Menken, J., & Trussell, J. (1986). Age and infertility. Science, 26, pp. 1389–1394.

¹¹ Centers for Disease Control and Prevention Reproductive Health. Available at: http://www.cdc.gov/reproductivehealth/Infertility/#e. Accessed July 12, 2013.

¹² Dunson, D.B., Baird, D.D., & Colombo, B. (2004). Increased infertility with age in men and women. Am J Obstet Gynecol. 103, pp. 51–56.

¹³ Pregnancy rate (per 1 000 women) in various populations at different times in history, based on Hutterite, Geneva bourgeoisie, Canada, Normandy, Tunis, Norway and Iranian data. Modified from Female age-related fertility decline. Committee opinion no. 589, American College of Obstetricians and Gynaecologists, American Society of Reproductive Medicine.

Infertility is defined as the failure to achieve a successful pregnancy after 12 months or more of regular unprotected intercourse or exposure to sperm. ¹⁴ Earlier evaluation and treatment may be justified based on medical history and physical findings, and is warranted after six months without conception for women over age 35 years, due to the age-related decline in fertility. ¹⁵

Women who defer childbearing until later in their reproductive life (i.e. over 35) face multiple risks. Problems can arise with conceiving in both natural and in vitro fertilisation (IVF) pregnancies. There is an increase in the risk of miscarriage due to the accumulated genetic abnormalities in eggs. Only a minority of women experience the joy of a live term-birth with assisted reproduction technology (ART), and many women are exposed to risks that are not publicised by a profit-driven industry.

Young women must be informed that the fertility decline means more than just the 'ticking of a biological clock.'

As gynaecologists, we see that fertility treatments are no panacea for the age-related decline in fertility; research models have shown that the gap between desired and achievable children cannot be closed by ART. The truth is that fertility falls over the reproductive years, fertility treatments are less successful in older women, and their pregnancies are associated with more risk.

The influence of stress on fertility

Stress is defined as a state of disharmony or threatened homeostasis provoked by a psychological, environmental, or physiologic stressor.¹⁷

The belief that infertility is a psychologically mediated condition is long-standing. As health-care professionals developed the ability to diagnose and treat most cases of infertility, they began to view it as an organic condition. Some infertility patients were told that their stress level had nothing to do with their ability to become pregnant,

and some health professionals did not assess the psychological status of their patients. However, there is evidence that stress levels influence the outcome of infertility treatment, and also contribute to patients' decision to continue treatment.¹⁸

Stress also affects patients' reactions to pregnancy loss during infertility treatment and pregnancy complications. Moreover, psychological distress is associated with treatment failure, and interventions to relieve stress are associated with increased pregnancy rates. Women are experiencing workplace stress similar to men especially with an increase in women in management and leadership positions.

Options for fertility preservation

Because the age-related decline in fertility is primarily related to the oocyte (immature egg cell), strategies to preserve oocytes are likely to afford effective means of avoiding infertility in women who wish to delay childbearing. For women who are approaching advanced reproductive age, but are not ready to become pregnant or are not in the position to have a child, options to preserve fertility, such as embryo- and oocyte cryopreservation, may be considered.

Embryo cryopreservation

Embryo cryopreservation is a proven method of fertility preservation. Since the first human pregnancy following the transfer of cryopreserved embryos was described in 1983 ¹⁹ approximately 200 000 live births have resulted from this technology.²⁰

The process is identical to that of in vitro fertilisation, in that it involves controlled ovarian hyperstimulation with daily injectable gonadotropins. It is typically initiated in the early follicular phase of the menstrual cycle, or after an interval on the birth control pill, and continues for approximately ten to 14 days, to achieve multiple periovulatory follicles. The eggs are retrieved via needle aspiration utilizing transvaginal ultrasound guidance (a procedure which is done under conscious sedation), and are then fertilised with sperm in the laboratory.

¹⁴ Practice Committee of the American Society for Reproductive Medicine. (2013). Definitions of infertility and recurrent pregnancy loss: A committee opinion. Fertil Steril. 99 p. 63.

¹⁵ Practice Committee of the American Society for Reproductive Medicine. (2013). Definitions of infertility and recurrent pregnancy loss: A committee opinion. Fertil Steril. 99 p. 63.

¹⁶ Te Velde, E., Habbema, D., Leridon, H. & Eijkemans, M. (2012). The effect of postponement of first motherhood on permanent involuntary childlessness and total fertility rate in six European countries since the 1970s. Human Reproduction, 19, Insurance 2012.

¹⁷ Chrousos, G. P., & Gold, P.W. (1992). The concepts of stress and stress system disorders. JAMA, 267, pp. 1244-1252.

¹⁸ Campagne, D.M. (2006). Should fertilization treatment start with reducing stress? Hum Reprod, 21, p. 1651.

¹⁹ Pickering, S.J., Braude, P.R., & Johnson, M.H. (1991). Cryoprotection of human oocytes: Inappropriate exposure to DMSO reduces fertilization rates. Hum Reprod, 6, p. 142.

²⁰ Society for Assisted Reproductive Technology, American Society for Reproductive Medicine. Assisted reproductive technology success rates. National summary and fertility clinic reports. www.cdc.gov/ART/ART2003. (Accessed on October 29, 2008).

The sperm can be provided by a participating male partner or by an anonymous sperm donor. The resulting embryos are cryopreserved, and can be stored until the woman is ready to attempt to conceive. Even embryos cryopreserved for longer than ten years have been reported to result in successful pregnancies.²¹

Live birth rates from frozen-thawed embryos depend on the age of the woman at the time of the egg retrieval, ranging from approximately 31% per transfer for women younger than 35 years old to 19% per transfer for women between 41 and 42 years of age.

Obstetrical outcomes in pregnancies resulting from cryopreserved embryos are similar to those resulting from fresh embryos with respect to birth weight, gestational age at delivery, perinatal mortality, and rates of major congenital malformations.²²

Thus, cryopreservation of embryos is not thought to have a negative impact on subsequent perinatal outcomes.

Oocyte cryopreservation

All women considering oocyte cryopreservation as a method of fertility preservation should be informed of the anticipated chance of pregnancy, should they attempt to conceive using their frozen oocytes in the future.

Mature oocytes²³

Success of mature oocyte cryopreservation has improved dramatically over the past decade, and it is no longer considered experimental by the American Society for Reproductive Medicine²⁴ or the American College of Obstetricians and Gynaecologists.²⁵ Oocyte preservation is a preferred option for women who do not have a participating male partner and are not interested in

using donor sperm at a time when they wish to preserve their eggs. Women who are considering elective oocyte cryopreservation should be informed that there are neither large-scale nor long-term follow-up on children born from this procedure. Potential candidates should be counselled thoroughly about the risks and benefits of the process, as well as the likelihood of achieving pregnancy.²⁶

As with embryo cryopreservation, ovarian stimulation followed by oocyte retrieval is necessary. Mature oocytes are cryopreserved shortly after retrieval. However, the complex biological properties of the human oocyte make oocyte cryopreservation more challenging than embryo cryopreservation.

Although the first pregnancy from oocyte cryopreservation was reported in 1986, the overall success rate (i.e. oocyte survival, fertilisation rates, and pregnancy rates) remained low for many years, discouraging routine application of the technology. However, modifications in cryopreservation methods have led to significant improvements over the last decade.

Immature oocytes

Ovarian tissue cryopreservation is an investigational method of fertility preservation. It has the potential advantage of preserving a large number of oocytes within primordial follicles without the need for ovarian stimulation. Strips of ovarian tissue can be reimplanted orthotopically (into the pelvis) or heterotopically (into alternative sites, such as the forearm), or oocytes may be isolated from the ovarian cortex and matured in vitro. However, retrieval of ovarian tissue requires an invasive surgical procedure (generally performed by laparoscopy). Additionally, optimal surgical techniques and laboratory methodology have yet to be established, and appropriate clinical indications remain unclear.

It is not known how many women have had ovarian tissue cryopreserved or reimplanted, and only five live births have resulted from this technology as of 2008. This procedure is generally reserved for women at risk of ovarian failure from cytotoxic drugs or radiation therapy.

²¹ Wilson, C., Check, J.H., Summers-Chase, D., & Swenson, K. (2006). Successful pregnancies from embryos cryopreserved more than ten years: Two case reports. Clin Exp Obstet Gynecol, 33, p. 79.

²² Aytoz, A., Van den Abbeel, E., & Bonduelle, M, et al. (1999). Obstetric outcome of pregnancies after the transfer of cryopreserved and fresh embryos obtained by conventional in-vitro fertilization and intracytoplasmic sperm injection. Hum Reprod, 14, p. 2619.

Shih, W., Rushford, D.D., & Bourne, H., et al. (2008). Factors affecting low birth weight after assisted reproduction technology: Difference between transfer of fresh and cryopreserved embryos suggests an adverse effect of oocyte collection. Hum Reprod, 23, p. 1644.

²³ An oocyte is an egg cell. It is usually in the dormant form. During a menstrual cycle, it will be stimulated leither physiologically or pharmacologically to become mature before it is released for fertilisation. A mature oocyte is therefore a stimulated egg cell.

²⁴ Practice Committees of American Society for Reproductive Medicine, Society for Assisted Reproductive Technology. Mature oocyte cryopreservation: A guideline. Fertil Steril 2013; 99:37.

²⁵ American College of Obstetricians and Gynaecologists Committee on Gynaecologic Practice. (2014). Oocyte cryopreservation. Obstet Gynecol, 123, p. 221.

²⁶ Practice Committee of the Society for Assisted Reproductive Technology, Practice Committee of the American Society for Reproductive Medicine. (2007). Essential elements of informed consent for elective oocyte cryopreservation: A Practice Committee opinion. Fertil Steril, 88, p. 1495.

One can assume that the older a woman is at the time of oocyte cryopreservation, the lower the probability of live birth in the future. Based on the data summarised above from women whose average age was 33 years at the time of oocyte freezing: approximately 5% of thawed oocytes will successfully implant, and 4% will result in a live birth. Thus, approximately 20 to 25 oocytes would need to be thawed to achieve a high statistical probability of a single live birth, while cryopreserving 10 to 12 oocytes would be expected to yield only a 50% cumulative probability of a live birth.

The data support the concept that women who are older at the time of oocyte cryopreservation should expect to have a lower probability of live birth in the future than those who are younger. However, clinical pregnancies can be achieved from oocyte cryopreservation in women ages 41 to 43 years, which suggests that this technology could be beneficial even in this very advanced reproductive age group.

attempting maximum age for cryopreservation may be as high as 45 years, based on a study that evaluated the success of IVF in women older than 44 years. In this study, IVF yielded live births up to the age of 45 years, but success was limited to those patients producing more than 5 oocytes in response to ovarian stimulation. Although pregnancy rates for 46and 47-year-old patients in this study were 17% and 9%, respectively, none of these pregnancies resulted in a live birth. Thus, it may be reasonable to consider oocyte cryopreservation for fertility preservation up to age 45 years, as long as the patient is thoroughly counselled about the low probability of success.

Maintaining reproductive health

Maintaining good reproductive health is essential for both men and women. There are many external and internal factors that may affect your reproductive health. Good reproductive health has a direct relationship with your overall health status. It is better to maintain a good reproductive health than going for infertility treatments later. Good reproductive health will keep you fertile, regularise your periods, and provide the best chance of having a healthy baby. Good reproductive health depends on diet, lifestyle, medical conditions, occupational exposures, and many more factors.

Diet

Diet plays an important role in keeping your reproductive system healthy. Avoid fast foods; most of the additives and preservatives in those will affect your fertility. Go for fresh meat, fish, and vegetables rather than processed foods. Choose healthy snacks like fruit and nuts rather than chocolates. Elevated blood mercury levels from

heavy seafood consumption have been associated with infertility.²⁷ Women attempting to conceive should take a folic acid supplement (at least 400 mcg daily) to reduce the risk for neural tube (a hollow core from which the brain and spinal cord develop) defects.²⁸

Medical fitness

There are many medical conditions that may affect your reproductive health. These include diabetes, thyroid problems, anatomical problems, and malnutrition. Keeping those conditions in control will help you improve your overall health and reproductive health.

Smoking

If you want to maintain your reproductive health, you should definitely quit smoking. Smoking affects the reproductive system of both men and women. Smoking can clog arteries and it can cause vasospasm. These two conditions will ultimately result in erectile dysfunction in men.

Smoking has substantial adverse effects on fertility. A large meta-analysis comparing 10,928 smoking women with 19,128 non-smoking women found that smoking women were significantly more likely to be infertile. The observation that menopause occurs, on average, 1 to 4 years earlier in smoking women than in non-smoking women suggests that smoking accelerates the rate of follicular depletion. Smoking also is associated with an increased risk of miscarriage, in both naturally conceived pregnancies and those resulting from assisted reproductive technologies^{29 30} Although decreases in sperm density and motility and abnormalities in sperm morphology have been observed in men who smoke, available data do not demonstrate conclusively that smoking decreases male fertility.

Recreational drugs and steroids

These adversely affect your overall health and your reproductive health.

²⁷ Choy, C.M., Lam, C.W., Cheung, L.T., Briton-Jones, C.M., Cheung, L.P., & Haines, C.J. (2002). Infertility, blood mercury concentrations and dietary seafood consumption: A case-control study. BJOG. 109, pp. 1121–1125.

²⁸ Lumley, J., Watson, L., Watson, M., & Bower, C. (2001). Periconceptional supplementation with folate and/or multivitamins for preventing neural tube defects. Cochrane Database Syst Rev. 3, p. CD001056.

²⁹ Augood, C., Duckitt, K., Templeton, A.A. (1998). Smoking and female infertility: A systematic review and meta-analysis. Hum Reprod. 13(6), p. 1532.

³⁰ Pineles, B.L., Park, E., Samet, J.M. (2014). Systematic review and meta-analysis of miscarriage and maternal exposure to tobacco smoke during pregnancy. Am J Epidemiol, 179(7), p. 807.

Alcohol

Alcohol directly and indirectly affects the hypothalamus in the brain, the pituitary gland, and the ovaries, and testes. Alcohol also reduces the amount of testosterone in the blood.

The effect of alcohol on female fertility has not been clearly established. Whereas some studies have concluded that alcohol has a detrimental effect, others have suggested that alcohol may enhance fertility (see studies on women in Stockholm where fertility is reportedly increased by alcohol and contrasting studies in Denmark where wine has been found to increase time to conception.)³¹

Higher levels of alcohol consumption (→2 drinks/day, with 1 drink = 10 g of ethanol) probably are best avoided when attempting pregnancy, but there is limited evidence to indicate that more moderate alcohol consumption adversely affects fertility. Of course, alcohol consumption should cease altogether during pregnancy because alcohol has well-documented detrimental effects on foetal development, and no "safe" level of alcohol consumption has been established. In men alcohol consumption has no adverse effect on semen parameters.

Caffeine

High levels of caffeine consumption (500 mg; →5 cups of coffee/day or its equivalent) have been associated with decreased fertility. During pregnancy, caffeine consumption of more than 2-3 cups/day may increase risk for miscarriage but does not affect risk for congenital anomalies. In one trial involving 1,207 women who were randomly assigned to drink decaffeinated versus caffeinated coffee (at least 3 cups/day) during pregnancy, there were no observed differences between

the two groups in gestational age at delivery or in infant weight, length, head circumference, or abdominal circumference. Overall, moderate caffeine consumption (1 to 2 cups of coffee per day or its equivalent) before or during pregnancy has no apparent adverse effects on fertility or pregnancy outcomes. In men caffeine consumption has no effect on semen parameters.

Occupational hazards

Occupational hazards are the most important reason for most of the male infertility cases. Avoid exposure to radiation, chemicals and constant or excess heat. Avoid exposure to chemicals such as pesticides, herbicides, and industrial solvents.

Correct weight

Maintaining the correct weight is very important, as being overweight can affect your hormone balance and impair fertility. Exercising regularly will help you to maintain a good reproductive health. Fertility rates are decreased in women who are either very thin or obese, but data regarding the effects of normal variations in diet on fertility in ovulatory women are few.³² Whereas a healthy lifestyle may help to improve fertility for women with ovulatory dysfunction, there is little evidence that dietary variations such as vegetarian diets, low-fat diets, vitamin-enriched diets, antioxidants, or herbal remedies improve fertility or affect infant gender.

Yoga

Yoga is an excellent way to keep your reproductive system healthy. It will help to keep proper balance between your mind and body, thereby keeping your overall health and reproductive system working. There are yoga poses which will help keep your reproductive system healthy.

Table 1: Lifestyle factors that affect infertility

Factor	Impact on fertility	Study
Obesity (BMI more than 35)	Time to conception increased two-fold	Hassan and Killick, 2004
Underweight (BMI less than 19)	Time to conception increased four-fold	Hassan and Killick, 2004
Smoking	RR of infertility increased 60%	Clark et al., 1998
Alcohol (more than 2 drinks/day)	RR of infertility increased 60%	Eggert et al., 2004
Caffeine (more than 250 mg/day)	Fecundability decreased 45%	Wilcox et al., 1998
Illicit drugs	RR of infertility increased 70%	Mueller et al., 1990
Toxins, solvents	RR of infertility increased 40%	Hruska et al., 2000

Note: Table reprinted from the document: Lifestyle factors that affect infertility, published in 2008, Fertil Steril 2008, 90 (Suppl): S1-6. BMI = body mass index; RR = relative risk.

³¹ Jensen, T.K., Hjollund, N.H., Henriksen, T.B., Scheike, T., Kolstad, H., Giwercman, A., Ernst, E., Bonde, J.P., Skakkebaek, N.E., & Olsen, J. (1998). Does moderate alcohol consumption affect fertility? Follow up study among couples planning first pregnancy. BMJ., 317(7157), pp. 505.

³² Clark, A.M., Thornley, B., Tomlinson, L., Galletley, C., & Norman, R.J. (1998). Weight loss in obese infertile women results in improvement in reproductive outcome for all forms of fertility treatment. Hum Reprod. 13, pp. 1502–1505

Fertility treatment and work

Many workplace challenges exist, including the need to take time off to undergo tests and other appointments. The timing of some of these tests is unpredictable, and depends on a woman's menstrual cycle. This issue makes it difficult to plan in advance when and where the patient will need to go for the test. In addition, patients sometimes have to go multiple times during a single day, depending on the results of the tests.

Besides the medical aspect of infertility treatments, women and men have to deal with the emotional stress of infertility. To put this into perspective, infertility treatment can be as stressful as a cancer diagnosis. Unique emotional challenges such as understanding the medical diagnosis, the relationship with your spouse and your family and friends and, finally, financial stress all combine to make dealing with this issue more stressful. People feel isolated and anxious, and they need to show up at work and perform, because their career path and/or financial situation depend upon it.

One of the biggest challenges in terms of the workplace is disclosure. Each person needs to decide what they are going to reveal to their supervisors and colleagues. If treatment is a failure and everyone at work knows about your situation, how are you going to handle the sympathy and the many questions? If treatment is successful, you will want time to ensure the pregnancy is viable and healthy before announcing it to co-workers and, especially, to your employer. The guiding principle is to be as honest as you can, maintain the boundaries you need for privacy, and work within the structure and rules of your organisation to keep a good relationship with your employer.

CHAPTER THREE

Becoming a single mother by choice

Bernice Lits and Tanya Rubin

The need to have a child cuts across all levels of society and ethnic groups. When this desire is not fulfilled, it can cause an increase in stress, a sense of failure as a woman, and intense feelings of grief. Many single senior women face the dilemma of dedication to a demanding career and the desire to have a child. Sheryl Sandberg, Chief Operating Officer for Facebook®, mentions that women rarely make one big decision to resign or downscale their work; rather, they make many small decisions along the way in order to hopefully aid their choice of having a family someday. These are often subconscious decisions made for the future.1

In the field of infertility, there is an increase in women between the ages of 35 and 40 years receiving treatment. This is in line with the fact that the rate of infertility worldwide is on the increase, as well as that a woman's fertility decreases dramatically after the age of 35.2 Recent trends indicate a significant increase in single women choosing to be mothers. This increase is particularly high among educated and professional women, often in managerial positions in the workplace. The US Census Bureau reported a rapid increase of single mothers by choice in the last decade. "The increase was particularly sharp among educated and professional women..., in professional and managerial jobs, this increase nearly tripled".3 Many recent studies have profiled these women as between the ages of 35 and 40; however, because single-parent families are so diverse, it is extremely difficult to profile the main characteristics of these families. In a blog written by a single mother, the following was said: "I am a Single

Mother by Choice, part of a growing demographic of women who choose single motherhood as their path to parenting. Most of us are in our 30s, well educated, successful – far outside the statistics. And for many of us, there is no regret in how we have become mothers. Our children are our lives, the best things that have ever happened to us."⁴

According to Hertz⁵, single mothers by choice represent a growing segment of society, and are often "women with jobs, often high-paying professional ones, who have elected to bypass the storied progression from love to marriage to motherhood." Hertz views it as a way of fulfilling a familiar dream in an unfamiliar way – a reversal of the traditional order of things.

Women today have a better sense of self-esteem, and feel more empowered than ever before to make choices regarding careers and parenting. This is reflected in a growing trend of women delaying having children for the sake of their careers. By the time these women have made the decision to proceed with single parenting, they are independent and generally financially secure. Relaxed social norms, longer life expectancy, and advanced reproductive technologies have all contributed to women postponing motherhood.

In the past, women married younger and started families earlier. There were fewer women in the workplace, and even fewer women in managerial positions. In 2010, the Pew Research Centre stated that seven out of ten women in the workplace in the USA are taking care of children. Nowadays, many more opportunities are available to women who want a career. For this reason, many women delay having children in order to climb the corporate ladder and establish themselves in the workplace. Choosing single parenthood requires a downshift in the woman's career, in order to accommodate motherhood.⁷

¹ Sandberg, S (2013) Lean in: For graduates. Random House Books, Australia

² Glazer, E.S. and Sterling, E.W. (2005). Having your baby through egg donation. Perspectives Press Inc. Indianapolis.

³ Mattes, J. L.C.S.W. (1997). Single mothers by choice. Three Rivers Press. New York.

⁴ www.babble.com/mom/single-mothers-by-choice

⁶ Hertz, R (2006). Single by chance, mothers by choice. Oxford University Press. New York.

Mattes, J, L.C.S.W. (1997). Single mothers by choice. Three Rivers Press. New York.

Hertz, R (2006). Single by chance, mothers by choice. Oxford University Press. New York.

Women in their late 30s and early 40s seem to have a sense that time may be running out, and thus begin to seek alternative methods to conceive. Many of these single women choose to parent alone. In the constantly developing field of fertility, many more opportunities exist for single women who wish to conceive without a partner.

What is a single mother by choice?

A single mother by choice is a woman who consciously makes the decision to raise a child without a partner. She may or may not marry later on, but, at the outset, she proactively and consciously decides to become a single mother. She chooses to adopt or conceive a child before finding a lifetime partner. Being a single mother is a lifetime commitment and one of the most important decisions a woman will ever make. This commitment requires a process of introspection and self-evaluation to enable her to feel empowered in making the choice to be a single parent.

Single women considering single parenthood usually put in a great deal of forethought. Moving forward with the decision to become a single mother may involve abandoning long-held dreams of a traditional family, and facing anxiety about the implications of donor conception.⁸ This is when self-evaluation becomes important, which includes answering the following questions:

- Have you achieved your career- and personal goals?
- Have you considered the impact this choice may have on your career and life?
- Can you move forward with this process, knowing that some people may disapprove of your choice?
- Are you in a reasonably secure position to support yourself and your potential child, emotionally and financially?
- Do you have others who are financially dependent on you, for example, elderly parents?
- Have you acknowledged how you manage stressful situations?
- Are you realistic about your support system within your life and community?
- Are you comfortable with your decision, and would you be able to say to your child that you chose to become a single mother?

 Are you aware of the fact that you will need flexibility in accepting the outcome of this choice?

Should this life-changing event not be handled appropriately, old psychological conflicts may resurface or new ones may arise, resulting in anxiety and stress. However, according to Hertz⁹, "women describe the catalytic event as a defining moment when they choose to cross the threshold, realizing that even if they don't know exactly what is on the other side, moving toward motherhood is better than staying in the same place; considering single motherhood often brings feelings of relief."

Embarking on the journey can create many feelings of doubt and anxiety, even in the most confident woman. To normalise some of these common doubts and anxieties, counselling by an experienced counsellor in the field of fertility can be of great benefit. Counselling often triggers feelings and emotions that these women may not have been aware of, such as regret about previous relationships that did not work out, choice of career above focusing on relationships and parenting, feelings of having let down family members by not doing things in the traditional manner, and anxiety about having waited too long.

Single motherhood begins with a conviction and a secret. The conviction is to become a mother. The secret is the thought of becoming a single mother. The journey of trying to conceive is often described as a roller coaster ride of feelings, emotions, and procedures. Being single can make this a lonely journey. Trying to conceive is sometimes a secret until a pregnancy is achieved. Because of the profile of the woman making the choice to be a single mother, she is often seen as independent, ambitious, and successful. Having to make this decision suddenly puts her in a position where she is less able to cope, which might make her feel very vulnerable. 11

The way forward

Once having made the decision to conceive, the next step is to make an appointment for a consultation with a specialised fertility unit. Although the single woman may not necessarily be infertile, the process of conceiving using donor sperm needs specialised care. At a specialised unit, a woman's fertility status will be fully assessed and her options clarified. In this

Hertz, R (2006). Single by chance, mothers by choice. Oxford University Press. New York.

¹⁰ Hertz, R (2006). Single by chance, mothers by choice. Oxford University Press. New York.

¹¹ www.oxforddictionaries.com

⁸ www.dcnetwork.org

assessment, an otherwise healthy, active woman may have to confront sudden unexpected outcomes (to be addressed later). Single women who wish to conceive have options.

Conception by donor insemination

The donor may be a known or an anonymous sperm donor. If an anonymous donor is used, the fertility clinic will refer the patient to a certified sperm bank (often referred to as a cryobank), which could be local or an international. The international cryobanks can be accessed via the internet. Local cryobanks provide limited information about the donor, because, in South Africa, sperm donors are protected by law and are anonymous. 12 International cryobanks provide more detailed information on a personal level about the donor, because their countries' laws allow such disclosure. In some countries, these Cryobanks will release information about the sperm donor, which the donor has given consent to, once the child reaches the age of eighteen. In South Africa, a sperm donor is just that, which has implications for the child with regard to the identity of his/her father, and why no relationship was established.

When using a known donor (such as a friend), there are certain implications on both an emotional and legal level that need to be considered. In the case of a known donor, the child may have access to more specific information about the donor. The single mother does, however, have easier access to information at any stage of the child's life. Furthermore, some women feel that it is children's right to know the identity of their biological father.

It is crucial that an agreement be drawn up by a lawyer, addressing issues such as disclosure of the identity of the father, financial responsibility for the child, and access to the child, with the best interests of the child being the main concern. This is common law in that the court functions as the supreme guardian of all children and any agreement that negatively affects the child will be null and void.

There are benefits to either using a known and an anonymous donor, but the decision often depends on the individual and how they view the situation. With known sperm donation, the child would have the opportunity of knowing the donor and possibly forming a relationship with him in the future. Furthermore, the child would know its genetic background, which some would view as

the right of the child. With anonymous sperm donation, it is reassuring for the single mother to know that she is the sole custodian, and is not accountable to anyone in raising her child.

Adoption

Adoption requires a full psycho-social assessment of the single woman and her circumstances. It is also dependent on the availability of a child to adopt. According to the Children's Act, Act No. 38 of 2005 and the Children's Amendment Act, Act No. 41 of 2007¹³, single women and men qualify for adoption. If this is the journey of choice, the woman would need to consult an accredited adoption social worker.

Unexpected outcomes

In exploring the alternatives, some of these women may find a medical problem that may lead to infertility, thus creating a sense of urgency to conceive. The possibility of a diagnosis of imminent infertility may catapult many women into both thinking about and acting on their plans to conceive. Age-specific complications may arise in relation to fertility, due to the fact that a woman's fertility decreases dramatically after the age of 35. The press often features women of advanced age having babies, but the conception is often shrouded in secrecy. This gives women false hope about their own fertility.

A diagnosis of infertility creates feelings of disbelief, shock, anger, guilt, and confusion. This can impact greatly on a woman's social functioning, as well as her work performance. Once the decision is made to have a child, there is a great sense of relief. A feature of these feelings is often an overwhelming sense of loss. According to Waichler¹⁵, when we consider the impact of infertility, we cannot overemphasise the notion of loss. The feeling of loss is one of the core consequences of infertility. This feeling is difficult to deal with, as it is intangible and silent, often not understood by others. It is a sense of loss of what could have been. Life feels unpredictable, and the woman is confronted with a situation that is beyond her control.

13 The Children's Act. Act No. 38 of 2005: Children's Amendment Act. Act No. 41 of

^{2007,} South Africa.

14 Hertz, R (2006). Single by chance, mothers by choice. Oxford University Press. New

¹⁴ Hertz, R (2006). Single by chance, mothers by choice. Uxford University Press. New York.

¹⁵ Waichler, I. (2006). Riding the infertility rollercoaster: A guide to educate and inspire. Wyatt-Mackenzie Publishing, Oregon.

¹² The Human Tissue Act, Act No. 65 of 1983; Chapter 8 National Health Care Act, South Africa.

The delicate balance between work and becoming a single mother

Once the decision to proceed has been made, one of the toughest challenges woman wanting to conceive alone have to face is how to manage the process and not let it impact on their work. It can be a lonely and private journey, accompanied by feelings of uncertainty and anxiety. These are feelings she might not want to share at work, because of the nature of her position in the workplace. This can further exacerbate these feelings and emotions.

To help her through this process, the company's human resource practitioner should help her consider the following points:

- Whether the woman's relationships with her boss and co-workers are amiable and supportive;
- What would she be prepared to reveal about her individual situation?
- How would she cope with questions and comments that will inevitably arise?
- Who would provide support at work?
- How will her treatment impact on her ability to perform her job effectively?
- If she needs to be away from the office, is someone available to cover for her?

Considering the above factors allows her to be proactive in terms of developing a plan to walk the tightrope of balancing the workplace and treatment. The human resource practitioner needs to inform her of the workplace's protocols and policies in this regard, such as time off, maternity benefits, and sick leave.

She needs to take into account that she works within the context of an organisation with its own expectations and demands. To retain her identity in the workplace, she would need to adhere to these expectations in the same manner as she did in the past.

Conclusion

The decision to become a single mother by choice, in some ways, is seen as a continuation of the changing norms for women in our society today. "While their achievements in the workplace became a symbol of equality and progress, these women did not give up on motherhood, [one of] the oldest expectation and centrally defining identity for woman." Choosing to become a single mother can enhance a woman's perception of her own identity, fulfilling the need to nurture and care for a child, and opening areas for growth that are vastly different from those in the workplace.

¹⁶ Hertz, R (2006). Single By Chance, Mothers By Choice. Oxford University Press. New York.

CHAPTER FOUR

HIV/AIDS and pregnancy: Let us be positive

Jenny Gobind

Introduction

An estimated 370 000 South Africans contracted HIV in 2013¹. While South Africa's new infection rate has fallen by about a half in the last decade, it remains the world's highest. Second to South Africa, Nigeria saw an estimated 260 000 new cases in 2012.² South African women carry a disproportionate burden; they account for more than half of all new cases of infection.

A staggering 49 percent of maternal deaths are attributable to HIV/AIDS, and the child mortality rate, children who die before the age of five years, accounts for 35% of deaths due to HIV/AIDS.³ The recognition of HIV/AIDS as a workplace issue is the first step in acknowledging that the disease threatens productivity, profitability, and the welfare of employees and their families. The workplace is an integral part of the community, and therefore has a vital role to play in terms of HIV prevention and the elimination of unfair discrimination associated with HIV/AIDS.

Providing care and treatment for HIV-positive employees has shown to reduce the financial burden of HIV/AIDS by as much as 40%.⁴ The Employment Equity Act, Act No. 55 of 1998 Code of Good Practice on Key aspects of HIV/AIDS and Employment (Code of Good Practice) was incorporated into the Employment Equity Act in order to eliminate unfair discrimination and stigmatisation in the workplace based on real or perceived HIV status, including issues relating to HIV testing, confidentiality, and disclosure; promote access to education, equitable employee benefits, and employment protection; manage grievance procedures in relation to HIV and AIDS; and create a safe and healthy work environment.⁵

The code according to the gazetted notice must be read in conjunction with the Constitution and all relevant legislation, including the Basic Conditions of Employment Act 75 of 1997, the Labour Relations Act 66 of 1995, the Compensation for Occupational Injuries and Diseases Act 130 of 1993, the Occupational Health and Safety Act 85 of 1993, and the Medical Schemes Act 131 of 1998. The International Labour Organization (ILO) holds that HIV/AIDS as a workplace issue that should be treated like any other serious illness/condition. This is necessary, not only because HIV affects the workforce, but also because the workplace, being part of the local community, has a role to play in the wider initiatives to limit the spread and effects of HIV/AIDS.^{6,7}

HIV/AIDS and the workplace

With legislation having establishing that HIV/AIDS is a workplace issue, it is clear that no employee, male or female, suffering from HIV/AIDS may be discriminated against. This places employers is in a position of accountability regarding the treatment of such employees. Special considerations have to be made when accommodating this employee during illness and assigning of tasks. Female employees of reproductive age are of particular concern to employers, as HIV is now the leading cause of maternal mortality in South Africa. It is estimated that between 42 000 and 60 000 pregnant women died because of HIV in 2009.8 HIVpositive pregnant female employees and their new-born babies are particularly vulnerable. Globally, in 2009, 370 000 children became infected with HIV – more than 1 000 every day. Nearly all of these children acquired HIV through mother-to-child transmission (MTCT).9 In developed countries, MTCT of HIV has been decreased to about 1% through preventive measures, including effective voluntary or routine counselling and testing for HIV, antiretroviral therapy (ART), and the use of safe,

¹ Lopez Gonzalez, L (2013) How South Africa's fight against HIV stacks up, Health-e, Retrieved from http://www.health-e.org.za/2013/09/23/south-africas-fight-hivstacks/

² Lopez Gonzalez, L (2013) How South Africa's fight against HIV stacks up, Health-e, Retrieved from http://www.health-e.org.za/2013/09/23/south-africas-fight-hivstacks/

³ Campbell. J (2014) South Africa; Progress in HIV/AIDS, Council on Foreign Relations, Retrieved from http://blogs.cfr.org/campbell/2014/02/26/south-africaprogress-in-hivaids/

⁴ South Africa.info (2014) Helping business to tackle AIDS, Retrieved from http://www.southafrica.info/business/economy/development/sabcoha.htm#. UzhcsaiSy1U#ixzz2xTFGLil0

⁵ Employment Equity Act, Act No. 55 of 1998 Code of Good Practice on Key aspects of HIV/AIDS and Employment, Government Gazette No 35435 (2012)

⁶ ILO et al., (2001)

⁷ Employment Equity Act, Act No. 55 of 1998 Code of Good Practice on Key aspects of HIV/AIDS and Employment, Government Gazette No 35435 (2012)

⁸ Ramirez-Ferrero, E (2012) Male involvement in the prevention of mother-to-child transmission of HIV, World Health Organisation (WHO), WHO Press, Geneva, Switzerland

⁹ Ramirez-Ferrero et al., (2012)

affordable, and accessible breast milk substitutes. 10 While this signals the effectiveness of efforts to reduce new infections, the reality in resource-poor countries is very different.

Employers need to become aware of the need to support HIV-positive female employees who need to breastfeed their vulnerable newborns. South African legislation allows for four months of maternity leave, which offers the HIV-positive or -negative female employee four months to breastfeed and bond with her baby. Upon returning to work, HIV-positive female employees tend to resort to breast milk substitutes as an alternative. The use of breast milk substitutes by an HIV positive employee may adversely impact on the baby, who may be HIV positive. Studies conducted by World Health Organization (WHO) have shown that six months of breastfeeding is beneficial to the development of the immune system of a baby, especially in HIV positive babies, who need to develop resistance to opportunistic diseases.¹¹ Therefore, milk substitutes being considered a better alternative is a myth that needs to be debunked.

Myths associated with HIV and pregnancy

There are several myths associated with HIV/AIDS relating to pregnancy and breastfeeding:

- The first is that an HIV negative woman cannot have a child with an HIV-positive spouse without being infected. An assisted reproduction programme allows for couples to conceive when the father is HIV positive. This programme allows for pregnancy while significantly lowering the risk of transmitting the father's HIV infection of the mother and the baby. By using sperm with no detectable virus, the mother avoids many of the risks associated with natural conception.
- Research has shown that blood tests for HIV do not reliably predict the presence of the virus in semen. The reason is that the organs that produce semen are affected separately by HIV infection. A man may test negative for HIV in his blood, but his semen may have a viral load – this includes men on therapy. Approximately two-thirds of semen specimens from healthy HIV-infected men do not contain detectable

- amounts of the virus. 12 Semen specimens that do not contain a detectable viral count are then 'washed.' This means the sperm is separated from the semen, using a centrifuge, placed in a solution, and then cryogenically preserved. The HI virus has not been found to be present in sperm cells, only in semen. Only sperm from specimens that do not have a detectable count in the semen are used in the fertilisation process. Women are tested for the presence of HIV at regular intervals after each pregnancy attempt. In this way, a woman may conceive with an HIV positive partner without placing herself or the baby at risk of infection.
- The second myth is that vaginal delivery is unsafe. The risk of MTCT transmission of HIV is low for women who take anti-HIV medication during pregnancy and have a viral load of less than 1 000 copies/mL near the time of delivery. For some HIV infected mothers, a scheduled caesarean delivery at 38 weeks of pregnancy, two weeks before the due date, can reduce the risk of MTCT of HIV. A scheduled caesarean delivery is recommended for HIV-infected women who have not received antiretroviral drugs during pregnancy, have a viral load greater than 1000 copies/mL, or an unknown viral load near the time of delivery. Should a woman go into labour before her scheduled caesarean delivery, a caesarean delivery may not reduce the risk of MTCT of HIV. The risks of going ahead with the scheduled caesarean delivery may be greater than the benefits. Depending on the individual woman's situation, a vaginal delivery may be the best alternative to a planned caesarean delivery¹³.
- Women infected with HIV are advised to continue with HIV treatment during labour and delivery, to reduce the risk of MTCT of HIV. During labour, women receive antiretroviral drugs intravenously to protect the baby from HIV in the mother's genital fluids. If proper procedures are followed, a vaginal delivery is considered safe.

¹⁰ Car, T (2011). Integrating prevention of mother-to-child HIV transmission (PMTCT) programmes with other health services for preventing HIV infection and improving HIV outcomes in developing countries, Cochrane Database of Systematic Reviews, 161:CD008741.

¹¹ United Nations Children Fund (1999) (UNICEF) (Breastfeeding: Foundation for Healthy Future, UNICEF, Division of Communication, 3 United Nations Plaza, H-9F, New York, NY 10017, USA

¹² Bedford stem cell research foundation (2014) HIV+ men and HIV- women having babies, Retrieved from http://www.bedfordresearch.org/products/products. php?item=products_hiv-infertility&gclid=Clz55c6Qtb0CFZDKtAodwD0ATg

¹³ U.S. Department of Health and Human Services (2012) U.S. Department of Health and Human Services' Recommendations for Use Reviewed of Antiretroviral Drugs in Pregnant HIV-1-Infected Women for Maternal Health and Interventions to Reduce Retrieved from http://www.aidsinfo.nih.gov/contentfiles/perinatal_fs_ en.pdf

- The third myth is that breastfeeding by a mother with HIV/AIDS should not be supported, and that the Joint United Nations Programme on HIV/AIDS (UNAIDS) does not support breastfeeding by such mothers, as it increases mortality in HIV-positive mothers. Until recently, the WHO advised HIV-positive mothers to avoid breastfeeding if they were able to afford, prepare, and safely store milk formula. However, research has since emerged, particularly from South Africa, that shows that a combination of exclusive breastfeeding and the use of antiretroviral treatment can significantly reduce the risk of transmitting HIV to babies through breastfeeding. 14 On 30 November 2009, the WHO released new recommendations on infant feeding by HIV-positive mothers, based on the new evidence. For the first time, the WHO is recommending that HIV-positive mothers and their infants take antiretroviral drugs throughout the period of breastfeeding, until the infant is 12 months old. This means that the child can benefit from breastfeeding, with very little risk of becoming infected with HIV.15
- Most children born to HIV-positive mothers and raised on formula do not die of AIDS, but of undernourishment, diarrhoea, pneumonia, and other causes not related to HIV. Breastfeeding not only provides babies with the nutrients they need for optimal development, but also gives babies the antibodies they need to protect them against some of these common but deadly illnesses. The WHO recommends that all mothers, regardless of their HIV status, practise exclusive breastfeeding, which means no other liquids or foods are given in the first six months. After six months, the baby should start on complementary foods. Mothers who are not infected with HIV should breastfeed until the infant is two years or older.
- The fourth myth is that, with proper instruction by health workers, most HIV positive mothers will easily and properly learn how to prepare formula. It is believed that, besides exclusive breastfeeding, support for healthy breastfeeding, reducing duration of breastfeeding, assessment of severity of mother's disease, and predetermination of CD4 count, nothing can be done to reduce HIV transmission through breast milk. Furthermore, infant formula is considered equivalent to breast milk. Professor

- Anna Coutsoudis¹6 of the Department of Paediatrics and Child Health at the University of the KwaZulu-Natal explains that the belief that formula is superior to breast milk is based, at least in part, on "strong and dishonest" marketing campaigns that make the unfounded claim that milk formula contains special ingredients that improve a baby's health. "Mothers are not told the truth that breast milk is infinitely better and that formula milk can be dangerous; that it is not always a sterile product and is easily contaminated." 17
- These myths underscore the fact that HIV-positive woman who are pregnant or want to become pregnant should consult an informed healthcare provider. HIV-negative women may safely conceive with their HIV positive partners, as there are several options available. Furthermore, the use of antiretroviral drugs during pregnancy, labour, and breastfeeding can dramatically reduce the risk of transmitting HIV to the infant. Breastfeeding does not increase mortality, as previously believed. Organisation such as the United Nations, the WHO, and UNICEF support breastfeeding as the healthiest option offered to a child. Antiretroviral drugs (ARVs) can significantly reduce the risk of transmitting HIV through breastfeeding. 18 The decision not to breast feed poses many risks of which many first-time mothers are unaware.

Risks related to HIV/AIDS and pregnancy

A pregnant woman who is found to be HIV positive has the option to join South Africa's Prevention of Mother-to-Child Transmission (PMTCT) programme which is offered at most government clinics free of charge. All HIV-positive pregnant or breastfeeding women qualify for ARVs. Incorporating ARVs in a treatment plan can help reduce the risk of HIV transmission to the newborn, and protect the mother's health during and after pregnancy. Therefore, ARVs should be taken as soon as possible after diagnosis, preferably within seven days. Women in labour should continue with their medication. The baby should also receive Nevirapine syrup within six to 72 hours of birth. The baby will continue to receive Nevirapine syrup for a further four or 12 weeks, depending on how long the mother has taken ARVs.

¹⁴ World Health Organisation (WHO) (2010) Breast is always best, even for HIV-positive mothers, Bulletin of the World Health Organization Past issues Volume 88: 2010 Volume 88, Number 1, Retrieved from, http://www.who.int/bulletin/volumes/88/1/10-030110/en/

¹⁵ WHO et al., 2010

¹⁶ WHO et al., 2010

¹⁷ WHO et al., 2010

¹⁸ Ramirez-Ferrero et al., 2012

HIV infected mother and the need to remain positive and healthy

HIV-infected mothers with a CD4 cell count below 350 have shown to be predictive of transmission through breastfeeding at 12 months and 18 months, but not at month six. A CD4 cell count below 200 is predictive of transmission through breastfeeding at any time, and women in this category have a nine-fold higher risk of transmitting HIV through breastfeeding by month six. ¹⁹ Therefore, HIV-positive mothers with CD4 cell counts less than 200 cells/mm3 should be strongly encouraged to consider antiretroviral treatment while breastfeeding, or replacement feeding from birth, due to their very high risk of postnatal transmission.

HIV can live for a long time in the body whilst the mother feels healthy and well. For this reason mothers are encouraged to go to the clinic regularly to receive medication for opportunistic infections to safeguard their health. Mothers are encouraged to use condoms every time they engage in sexual intercourse, to prevent re-infection. The mother should also be given counselling about contraception options after the birth of the child. It is important for the mother to join a group that will support her and give her information on eating nutritiously - for the sake of her own health and that of the baby. Formal support groups can be contacted through local clinics. As the mother's CD4 count improves, returning to breastfeeding may be suggested. While infant feeding should be encouraged, mothers with a low CD4 count are advised to obtain medical advice before continuing with breastfeeding.

Societal perceptions of breastfeeding

Infant feeding has been strongly influenced by patriarchal dominance. Infant feeding is considered to be the domain of women, as long as the practice conforms to social norms. Since infant feeding is often done in public settings, how women chose to feed their babies is evident to others. The choice of feeding can lead to a speculation regarding the woman's HIV status if it does not conform to normative cultural expectations. This, in turn, can result in the woman facing sanctions such as being forced to breastfeed for fear of being considered an unconcerned or indifferent mother. HR practitioners are in a unique position to change this perception of women in the workplace.

HR practitioners and HIV-positive breastfeeding mothers

HR practitioners are empowered to use their positions to encourage and reassure breastfeeding employees, especially women who need extra support.

- HIV-positive breastfeeding employees' right to confidentiality should remain a priority.
- The need to allow the HIV-positive employee to breastfeed is a legal right that needs to be upheld.
- The supply of ARVs through formal wellness programmes should be seriously considered by large organisations.

HR practitioners should ensure that the guidelines of the Basic Conditions of Employment Act 75 of 1997 and Code of Good Practice on the Protection of Employees during Pregnancy and after the Birth of a Child²⁰ are followed regarding lunch breaks and extended breastfeeding breaks.

Conclusion

Returning to work is a major reason for HIV positive women ceasing breastfeeding before the internationally recommended duration of six months of exclusive breastfeeding and continued breastfeeding until two years or beyond. It has been established that breastfeeding, also at work, delivers major health and economic advantages, with benefits for the child, the mother, the employer, and society. South African legislation provides for one hour, usually divided into two 30-minute breaks, per day. As breastfeeding facilities at the workplace are inexpensive and easy to set up, employers are encouraged to understand the advantages of being breastfeeding-friendly and to develop in-house policies with regard to HIV-positive breastfeeding employees. More should be done to raise the awareness of policy-makers, trade unions, and employers regarding the need to support HIV-positive breastfeeding mothers, both in terms of time and financial allocations.

¹⁹ Alcorn, K (2014) Exclusive breastfeeding may reduce risk of mother to child HIV transmission, Health Systems Trust, Retrieved from http://www.hst.org.za/news/exclusive-breastfeeding-may-reduce-risk-mother-child-hiv-transmission

²⁰ Basic Conditions of Employment Act No. 75 of 1997 Code of Good Practice on the Protection of Employees during Pregnancy and after the birth of a child, Government Gazette Vol. 401, No. 19453, (1998)

Decision-makers have a critical role to play in supporting these efforts, as HIV can be transmitted to infants through pregnancy, childbirth, and breastfeeding. There is a need to create a safe working environment for HIV-positive employees, and to develop procedures to manage occupational incidents and claims for compensation, to introduce measures to prevent the spread of HIV, and develop strategies to assess and reduce the impact of thereof on the workplace. The workplace has a critical role to play in preventing mother-to-child-transmission by supporting breastfeeding practices in accordance with international guidelines. As with a healthy mother, breastfeeding is vital to an HIV-positive mother and her baby. If organisations want to retain female employees and value their reproductive rights, organisations need to become pro-active in providing a conducive environment for these women.

CHAPTER FIVE

Breastfeeding at work

Monica Badenhorst

Introduction

The only alternative to maternal breastfeeding in ancient times was wet nursing, a practice whereby a lactating woman nursed an infant other than her own. The practice of wet nursing was popular in England during the 1600s and 1700s.¹ Wet nurses were employed by the elite and middle classes, and some infants were not seen by their parents until after weaning. Although wet nurses were used where the mother was unable to feed her infant due to maternal death or illness, wet nursing later became a social expectation.

Artificial feeding started becoming commonplace around 1850. Cow's milk became readily available through large-scale dairy farming, and chemists began to develop patented formulas, which were marketed in the United States and Europe in the 1860s.² Bottles with rubber nipples also made artificial feeding easier and safer.

Breast milk vs formula

Advertising and the distribution of women's magazines in the late 1800s contributed to the popularisation of artificial feeding. Early medical writers recommended highly regulated feeding times and limited feedings, even for breastfeeding mothers. These practices further undermined effective breastfeeding, as successful breastfeeding is dependent on frequent, unrestricted access to the mother's milk.³ During the 1950s, the predominant attitude was that breastfeeding was practised by the uneducated and lower classes. This attitude started to wane in the late 1960s.⁴

The rate of breastfeeding in the United States has slowly been rising since 2006, but numbers on breastfeeding for six months is still not meeting government's set targets.⁵ The International Code of Marketing of Breast Milk Substitutes was adopted by the World Health Assembly of the World Health Organisation in 1981. This code serves to regulate the marketing and advertising of breast milk substitutes.

In Southern Africa, poverty necessitates higher exclusive breastfeeding rates, in order to lower infant mortality. The Regulations Relating to Foodstuffs for Infants and Young Children (Regulation 991) was passed on 6 December 2012. The South African government aims to promote exclusive breastfeeding for the first six months of life and continued breastfeeding for two years or longer. To support these aims, employers have to be willing to provide a breastfeeding-friendly environment for lactating employees.

Legislation and global trends

Successful workplace lactation programmes are in place in various large companies in the United States. Examples include the CIGNA Corporation, an insurance company based in Philadelphia. The Working Well Mom's Lactation Programme for new mothers was launched in 1995. An evaluation done by the University of California found substantial savings in healthcare costs and reduced absenteeism with regard to participants in the programme. Hallmark Cards have Nursing Mother's Rooms in place, and provide electric breast pumps and refrigerators, and mothers share scheduling responsibilities. The Pentagon, although a male-dominated institution, has a successful lactation programme as part of its work-life programme.8 The Office on Women's Health of the US Department of Health and Human Services has compiled various booklets that are helpful in piloting a lactation programme at work.9

Riordan J; Wambach K (2010): Breastfeeding and human Lactation (4th Edition) Sudburg, Massachusetts: Jones and Bartlett Publishers.

Riordan J; Wambach K (2010): Breastfeeding and human Lactation (4th Edition) Sudburg, Massachusetts: Jones and Bartlett Publishers.

³ Riordan J; Wambach K (2010): Breastfeeding and human Lactation (4th Edition) Sudburg, Massachusetts: Jones and Bartlett Publishers.

⁴ Nathou T; Ostrey A (2009): The one best way? Breastfeeding History, Politics and Policy in Canada: Wifred Laurier University Press.

⁵ Riordan J; Wambach K (2010): Breastfeeding and human Lactation (4th Edition, Sudburg, Massachusetts: Jones and Bartlett Publishers.

⁶ Riordan J; Wambach K (2010): Breastfeeding and human Lactation (4th Edition) Sudburg, Massachusetts: Jones and Bartlett Publishers.

⁷ http://corporate.hallmark.com/OurCulture/Work-Life: Nursing Mother's Rooms

⁸ http://www.womenshealth.gov/breastfeeding/government-in-action/businesscase-for-breastfeeding/easy-steps-to-supporting-breastfeeding-employees.pdf

⁹ http://www.womenshealth.gov/breastfeeding/government-in-action/businesscase-for-breastfeeding/easy-steps-to-supporting-breastfeeding-employees.pdf

In South Africa, the Code of Good Practice on the Protection of Employees during Pregnancy and After the Birth of a Child (R.1441, Section 5:13) states that provision should be made for breastfeeding employees to have two 30-minute breaks in each working day to breastfeed or to express breast milk, for the first six months of the child's life. Information on lactation programmes in South African companies is scarce. Some prominent South African companies have established on-site childcare centres, e.g., First National Bank's centre in their Bank City branch in Johannesburg. They make use of childcare professionals, and work closely with trade unions. In Old Mutual opened a corporate crèche at Mutual Park in Pinelands, catering for 75 babies and 300 pre-school children.

According to an analysis by the International Labour Organisation, more than 92% of countries now have legislation in place entitling working mothers to nursing breaks or a reduction in work hours. In Asia, Latin America, and the Caribbean, such legislation is still lacking 13, although, in Brazil, employers with more than 30 women employees must provide a day nursery or (under a collective agreement) provide reimbursement for childcare for nursing mothers. 14

In the United States, the Affordable Care Act (2010) requires employers to provide break times for employees who wish to express milk for their infants, for up to one year after the birth of the infant. These break times need not be remunerated by the employer. The employer must provide a room other than a bathroom for this purpose. Employers with fewer than 50 employees need not adhere to this legislation. A total of 24 US states have laws related to breastfeeding in the workplace. 15

European maternity leave is more generous, with Swedish mothers receiving one year's paid leave, with the option of a further six months' unpaid leave. In the Czech Republic, parents receive up to three years' leave whilst receiving a monthly allowance. The parental leave can be taken by either of the parents or by both at the same time; however, only one parent will receive monetary support.¹⁶

The advantages of breastfeeding

The advantage of breast milk is the simple fact that it is species-specific and therefore tailor made for the human infant.

Breast is best

According to an article in the official journal of the American Academy of Paediatrics, exclusive breastfeeding for six months and weaning after one year have the potential of preventing more than one million infant deaths per year in developing countries.

Studies¹⁷ have shown that the risk of hospitalisation for upper respiratory tract infections is reduced by 72% if an infant is exclusively breastfed for four months. The risk of otitis media is reduced by 50% in exclusive breastfeeding for more than three months, and serious cold and flu and ear- and throat infections are reduced by 63% by exclusive breastfeeding for six months or longer. Any breastfeeding reduces the incidence of gastrointestinal tract infections by 64%, and this protective effect lasts for two months after the cessation of breastfeeding. Breastfeeding also leads to a reduction in allergies and asthma, Celiac disease, and childhood leukaemia and lymphomas.¹⁸

Where there is a family history of allergies, the mother should be encouraged to breastfeed for at least 12 months, and delay the introduction of solid foods until the infant reaches six months of age. Occasional formula supplementation may cause an allergic reaction, and is to be avoided. Specialised anti-allergy formulas are more costly than regular formulas, and may therefore significantly affect the financial stability of lower-income families. These families may resort to diluting the formula, causing malnutrition of the infant.

¹⁰ Republic of South Africa, Basic Conditions of Employment Act no.R. 1441, 1997, Schedule, Code of Good Practice on the Protection of Employees during pregnancy and after the birth of a child: Government Printers, Pretoria.

¹¹ Maternity protection Resource Package: Module 10: Part 4: Breastfeeding arrangements at work. International Labour Organisation, 2012. Retrieved from: http://www.mprp.itcilo/allegati/en/m10.pdf.

¹² https://www.oldmutual.co.za/PressRelease.aspx?navid=88&contentid=1511

¹³ Maternity at work: Findings of the ILO database of conditions of work and employment (second edition) retrieved from: http://www.ilo.org/wcmsp5/groups/ public@dgreports/@dcomm/@publ/documents/publications/wcms124442.pdf

¹⁴ Maternity at work: Findings of the ILO database of conditions of work and employment (second edition) retrieved from: http://www.ilo.org/wcmsp5/groups/public@dgreports/@dcomm/@publ/documents/publications/wcms124442.pdf

¹⁵ U.S. Department of Health and Human Services (January 20, 2011). Executive summary: The surgeon General's Call to Action to Support Breastfeeding: Washington, DC. Office of the Surgeon General: retrieved from: http://www. surgeongeneral.gov/library/calls/breastfeeding/executivesummary.pdf.

¹⁶ Maternity at work: Findings of the ILO database of conditions of work and employment (second edition) retrieved from: http://www.ilo.org/wcmsp5/groups/ public@dgreports/@dcomm/@publ/documents/publications/wcms124442.pdf

¹⁷ Eidelman A; Schanier RJ (2012) Breastfeeding and the use of Human Milk: Pediatrics Volume 129 no 3.

¹⁸ Eidelman A; Schanier RJ (2012) Breastfeeding and the use of Human Milk: Pediatrics Volume 129 no 3.

¹⁹ Riordan J; Wambach K (2010): Breastfeeding and human Lactation (4th Edition) Sudburg, Massachusetts: Jones and Bartlett Publishers.

Other than the health benefits of breastfeeding, studies done in Germany have shown a 50% reduction in sudden infant death syndrome in all ages of infancy in babies that were breastfed for six months or longer. In long-term studies carried out on adult subjects, and persons who were breastfed as infants had a lower mean blood pressure and total cholesterol levels, and fewer occurrences of Type 2 diabetes. The prevalence of obesity was also found to be lower. The same study found higher performance in intelligence tests in persons who had been breastfed as infants. Another study, done in Belarusian maternity hospitals, using 17 046 healthy breastfeeding infants, followed up at five and six years of age, found that prolonged and exclusive breastfeeding improved children's cognitive development.

A lactating woman needs about 500 additional calories per day for milk synthesis.²³ Exclusive breastfeeding for six months also holds benefits for the mother. It has been shown to decrease the incidence of postnatal depression, and significantly decrease the rate of child abuse/neglect. A cumulative lactation history of 12 to 23 months showed a significant reduction in hypertension (high blood pressure) and cardiovascular disease, as well as a 28% reduction in the occurrence of breast cancer in the mother.²⁴

Formula feeding is more expensive, requiring the purchase of milk formula and feeding equipment. Clean running water and equipment to boil water and sterilise feeding equipment are vitally important for the health of the infant. Milk formulas also lack the immunological factors present in breast milk, and are easily contaminated, which may contribute to ill health.

Challenges in breastfeeding

The Executive Report of the US Surgeon General lists key barriers to successful breastfeeding:²⁵

- Lack of knowledge where the mother does not receive adequate information on initiating and sustaining lactation;
- Lactation problems such as nipple problems, engorgement, and true or perceived inadequate lactation. These problems must be treated early and professionally;
- Poor family and social support support from the father, grandparents and family members are important. Myths about breastfeeding need to be addressed early on;
- Social norms where people see breastfeeding as an alternative, rather than a normal way of infant feeding;
- Embarrassment whereby sexualisation of breasts inhibits public feeding;
- Employment and childcare full-time workers breastfeed for shorter periods than part-time workers or unemployed women²⁶; and
- Inadequate health services where healthcare workers lack training and education, or have no personal experience of breastfeeding.

For some women, breastfeeding an infant may present many challenges. Some are not well prepared during pregnancy²⁷, and although internet resources are widely available, one-on-one counselling and support by certified lactation consultants remain an excellent source of support for breastfeeding mothers.²⁸

²⁰ Vennemann MM, Bajanowski T, Brinkmann B (March 2009):. "Does breastfeeding reduce the risk of sudden infant death syndrome? Pediatrics 123 (3): e406–10. retrieved from doi:10.1542/peds.2008-2145. PMID 19254976

²¹ Horta BL; Bahl R; Martines JC; Victora CG: Evidence on the long term effects of breastfeeding (2007) World Health Organisation, Geneva, Switzerland: Retrieved from http://whqlibdoc.who.int/publications/2007/9789241595230_eng.pdf

²² Kramer MS, Aboud F, Mironova E, Vanilovich I, Platt RW, Matush L, Igumnov S, Fombonne E, Bogdanovich N, Ducruet T, Collet JP, Chalmers B, Hodnett E, Davidovsky S, Skugarevsky O, Trofimovich O, Kozlova L, Shapiro S, Promotion of Breastfeeding Intervention Trial (PROBIT) Study Group. (2008): Breastfeeding and child cognitive development: New evidence from a large randomized trail: Archives of general Psychiatry: retrieved from http://www.ncbi.nlm.nih.gov/pubmed/18458209:

²³ Riordan J; Wambach K (2010): Breastfeeding and human Lactation (4th Edition) Sudburg, Massachusetts: Jones and Bartlett Publishers.

²⁴ Eidelman A; Schanier RJ (2012) Breastfeeding and the use of Human Milk: Pediatrics Volume 129 no 3.

²⁵ U.S. Department of Health and Human Services (January 20, 2011). Executive summary: The surgeon General's Call to Action to Support Breastfeeding: Washington, DC. Office of the Surgeon General: retrieved from: http://www. surgeongeneral.gov/library/calls/breastfeeding/executivesummary.pdf.

²⁶ Riordan J; Wambach K (2010): Breastfeeding and human Lactation (4th Edition) Sudburg, Massachusetts: Jones and Bartlett Publishers.

²⁷ Kosak J (2013): 5 Challenges breastfeeding moms face when returning to work: retrieved from http://www.huffingtonpost.com/joy-kosak/5-challengesbreastfeeding-moms-face-when-returning-to-work b 3839652.html

²⁸ U.S. Department of Health and Human Services (January 20, 2011). Executive summary: The surgeon General's Call to Action to Support Breastfeeding: Washington, DC. Office of the Surgeon General: retrieved from: http://www. surgeongeneral.gov/library/calls/breastfeeding/executivesummary.pdf.

Breastfeeding while working

Continuing breastfeeding when returning to work or starting a new job presents even more challenges, such as:

- the demands of work and family;
- lack of support from the spouse/partner and the employer; and
- a lack of knowledge of the correct pumping and storage of breast milk.

Breastfeeding while working is complicated by inflexible working hours and break times, lack of support by employers, lack of privacy, and intimidation by male coworkers. Women in managerial positions and women who describe their jobs as fulfilling are more likely to breastfeed. Workers who are paid an hourly wage may not want to take breaks, as this negatively impacts their income. Furthermore, low-income employees may be unable to afford childcare and breast pumps. They may not be able to afford the services of a lactation consultant to provide them with the necessary advice and guidance.

During pregnancy and in the early postpartum period, many women experience significant sleep changes. This may be due to hormonal changes and infant feeding patterns. When the mother returns to work, the infant's routine is disrupted, and sleeping patterns may change. Some infants sleep for longer periods during the day, coupled with increased night feedings and awakenings, which contribute to maternal fatigue. Fatigue may, in turn, cause stress, which may be compounded by workplace stress. This will inhibit the secretion of the hormone oxytocin, which is responsible for milk ejection, known as the 'let-down' reflex. A poor milk ejection reflex may affect the quality of milk, and thus the well-being of the infant.

Maternal fatigue may be dangerous for employees who operate machinery or have jobs that require a high level of concentration to enable them to do their jobs safely.

The employer must take fatigue into consideration, whether the employee is breastfeeding or not.

Early return to the workplace after giving birth will cause increased fatigue and more breast-related problems than a later return to the workplace.³³ Common early postpartum problems include engorgement, leaking, frequent feedings, growth spurts, and night feeds.34 These factors are no longer a problem by the time a baby reaches four months of age. In South Africa, Section 25 of the Basic Conditions of Employment Act, 1997, states that four months' maternity leave have to be awarded, of which one month can be taken before the date of birth. Women are not permitted to go back to work before six weeks after the birth, unless a doctor or midwife states that it is safe to do so.³⁵ Delaying the return to work is positively associated with breastfeeding duration. The ideal period is 16 weeks, to enable a mother to initiate and establish a good milk supply.36

Maintaining an adequate milk supply is essential for successfully continuing breastfeeding while working. This might present a challenge, especially if the mother is not breastfeeding exclusively. Some mothers prefer to combine breastfeeding with formula feeding, where the baby is breastfed by the mother and fed formula by the caregiver. The mother may have to express milk at work – for comfort and to maintain her milk supply – as breastfeeding is dependent on a supply-and-demand cycle.

Careful planning to continue breastfeeding while working is essential for success. Pre- and postnatal breastfeeding classes will increase knowledge and confidence³⁷, as will consultation with a human resources practitioner and knowledge of the rights of a breastfeeding employee.³⁸

²⁹ Riordan J; Wambach K (2010): Breastfeeding and human Lactation (4th Edition) Sudburg, Massachusetts: Jones and Bartlett Publishers.

³⁰ Guendelman S; Kosa JL; Pearl M; Graham S; Goodman J; Kharrazi M (January 2009): Juggling Work and Breastfeeding: Effects of Maternity Leave and Occupational Characteristics: Pediatrics Volume 123 pp.e38-e46 retrieved from http://pediatrics.aappublications.org/content/123/1/e38.full

³¹ U.S. Department of Health and Human Services (January 20, 2011). Executive summary: The surgeon General's Call to Action to Support Breastfeeding: Washington, DC. Office of the Surgeon General: retrieved from: http://www. surgeongeneral.gov/library/calls/breastfeeding/executivesummary.pdf.

³² Riordan J; Wambach K (2010): Breastfeeding and human Lactation (4th Edition) Sudburg, Massachusetts: Jones and Bartlett Publishers.

³³ McGovern P; Dowd B; Gjerdingen D; Dagher R; Ukestad L; McCaffrey D; Lundberg U [Nov 2007]: Mother's Health and Work related factors at 11 weeks Postpartum: Ann Fam Med Retrieved from: http://www.nbci.nlm.nih.gov/pmc/articles/ PMC2094033/

³⁴ Riordan J; Wambach K (2010): Breastfeeding and human Lactation (4th Edition) Sudburg, Massachusetts: Jones and Bartlett Publishers.

³⁵ Retrieved from: www.labour.gov.za/DOL/legislation/acts/basic-guides/basic-guideto-maternity-leave

³⁶ Galtry J;(1997): Lactation and the labour market: Breastfeeding, Labour market changes and public policy in the United States: Health Care Women Int; Sept-Oct 18/5): 467-480

³⁷ Riordan J; Wambach K (2010): Breastfeeding and human Lactation (4th Edition) Sudburg, Massachusetts: Jones and Bartlett Publishers.

³⁸ Kosak J (2013): 5 Challenges breastfeeding moms face when returning to work: retrieved from http://www.huffingtonpost.com/joy-kosak/5-challengesbreastfeeding-moms-face-when-returning-to-work b 3839652.html

Day care

If no on-site day care is available, the following should be considered in choosing a day care centre:³⁹

- Are the caregivers supportive of breastfeeding?
- Do they have knowledge of the quality of breast milk and the handling thereof, and are they willing to handle expressed breast milk, which is, in essence, a human bodily fluid with associated risks?
- The day care centre must preferably be close to the workplace. This may facilitate exclusive breastfeeding without the use of bottles, if the mother can visit the centre at designated times during the day.
- If an ideal day care centre is not found, a trained athome caregiver could be considered.

Guidelines for the effective collection and storage of breast milk

Studies by Auerbach and Guss^{40, 41} found that mothers should start practising expressing milk seven to ten days before returning to work. The mother must decide whether to feed the baby the expressed breast milk from a cup or a bottle if she does not have access to her infant during the day. Counselling on effective milk expressing should be done prenatally or as soon as possible after birth, preferably by a lactation consultant. This will enable the mother to express milk without effort when she has to return to work.

Hand expression is one way of expressing breast milk, and may be the only choice for a low-income employee, as most breast pumps are expensive. However, the easiest way to collect breast milk is through use of a breast pump. There are various models available, and the mother may need advice from a lactation consultant on the breast pump that will meet her needs. Three types of breast pumps are available: manual breast pumps, battery-operated pumps, and single- and double electric pumps. Double electric pumps express both breasts simultaneously.

Important factors to consider in the choice of a breast pump are ease of assembly and cleaning of the breast pump, together with comfort, efficiency, and cost. Studies by Zinaman et al. (1992) showed that double electric pumping yields the best results in terms of prolactin-level stimulation. Prolactin and oxytocin are the two hormones responsible for lactation. Prolactin initiates and maintains milk production, and oxytocin is responsible for milk ejection.⁴²

The amount of time spent on and frequency of expressing breast milk are dependent on various factors. These may include the technique of milk expression and the equipment used. Some women are more adept at expressing breast milk than others. A double electric pump works faster than a single breast pump, which is an advantage when time is limited. With younger babies, the mother may have to express breast milk every three hours. A 15-minute expression during the lunch break and two 10-minute sessions at break times should be sufficient to sustain milk supply.⁴³ The mother should breastfeed frequently when reunited with her infant, after work and over weekends. When the milk supply is well established, less frequent expressing and breast stimulation would be necessary. When solid food is added to the baby's diet, at six months of age, only one milk-expressing session per day may be necessary.44 After a year, milk expressing will cease completely.

Hamosh et al. (1996) showed that breast milk remains safe for consumption for 24 hours when stored at 15° Celsius. At 25° Celsius, it is safe for four hours. 45 Refrigeration of milk is essential in summer and in warm climates. Good hygiene practices, such as careful hand-washing prior to expressing breast milk, are important to inhibit bacterial growth. Breast milk should be stored in clean, capped glass or plastic containers. The container should be labelled with the date and time of collection, prior to storage. The use of polyethylene bags may cause fat loss in the milk. 46

³⁹ Riordan J; Wambach K (2010): Breastfeeding and human Lactation (4th Edition) Sudburg, Massachusetts: Jones and Bartlett Publishers.

⁴⁰ Riordan J; Wambach K (2010): Breastfeeding and human Lactation (4th Edition) Sudburg, Massachusetts: Jones and Bartlett Publishers.

⁴¹ Bar-Yam NB (2004): Nursing mother's at work: Corporate and Maternal Strategies to support Lactation in the workplace; Journal for the association for research on mothering: Vol 6; No 2 (128) retrieved from http://pi.library.yorku.ca/ojs/index.php/ jarm/article/viewFile/4929/4123

⁴² Riordan J; Wambach K (2010): Breastfeeding and human Lactation (4th Edition) Sudburg, Massachusetts: Jones and Bartlett Publishers.

⁴³ http://www.medelabreastfeedingus.com/tips-and-solutions/11/collection-andstorage-of-breastmilk

⁴⁴ Riordan J; Wambach K (2010): Breastfeeding and human Lactation (4th Edition) Sudburg, Massachusetts: Jones and Bartlett Publishers.

⁴⁵ Hamosh M; Ellis LA; Pollock DR; Henderson TR; Hamosh P:(1996) Breastfeeding and the working mother: effect of time and temperature of short term storage on proteolysis, lipolysis and bacterial growth in milk: paediatrics 492-8 retrieved from http://www.ncbi.nim.gov/pubmed/8632934

⁴⁶ Riordan J; Wambach K (2010): Breastfeeding and human Lactation (4th Edition) Sudburg, Massachusetts: Jones and Bartlett Publishers.

As levels of Vitamin C of stored milk decrease over time, it is recommended that milk be refrigerated, and then used within 24 hours. Losses of up to 20% of Vitamin C after 24 hours in the refrigerator have been reported. Frozen milk should be used within one month.⁴⁷ Although breast milk can be safely frozen for six months, the consistency of breast milk changes as the baby ages. The milk that was expressed first must be used first, as older milk may not meet the baby's needs.

To defrost frozen milk, a microwave oven should not be used. Microwave heating causes uneven distribution of heat, which may create hot spots in areas of the milk, with the associated risk of burns. Thawing breast milk at room temperature can cause bacterial multiplication. The safest and most effective way to defrost frozen breast milk is by placing the container in warm water to thaw, and shaking it gently to ensure fat redistribution. Unused portions should be discarded, and thawed milk should never be re-frozen.⁴⁸

Accommodating a breastfeeding employee

In the United States, it is estimated that 75% of women with children under the age of three years are employed.⁴⁹ In South Africa, according to a countrywide survey done by the Childbirth Educators Professional Forum on 800 private sector participants, 76% of the participants stated that they were returning to work after the birth of their baby. The percentage of mothers stating that they were ceasing breastfeeding because they had to return to work was 55%. Of the few women continued breastfeeding when back at work, 20% stated that they had to cease breastfeeding because of workrelated problems and a lack of support. 50 In an article published in August 2011 by AllAfrica.com, it was stated that South Africa was one of 12 countries with a rising infant mortality rate, and the lowest exclusive breastfeeding rate of 8%.

According to government surveys, this rate drops to 1.5% for four- to six-month-old babies. These unacceptably low rates prompted government's new infant feeding policy.⁵¹

Benefits of supporting the lactating employee in the workplace

These include decreased absenteeism due to infant illness. For every 1 000 infants not breastfed, there are an extra 2 033 doctors' visits, 212 days in hospital, and 609 prescriptions. 52 The female employee who feels she can balance family and work commitments will be more positive, and therefore more productive. Family-centred programmes, such as lactation policies in the workplace, can positively impact employee retention rates 53 and improve return on investment in employees. 54

Types of lactation support

Companies with in-situ lactation programmes provide a designated space for breast milk expression, may provide a breast pump or the means to obtain one, and provide education and support to the employee by means of either contracting a lactation specialist or providing an on-site lactation specialist.⁵⁵

Lactation support programme

A successful workplace programme may consist of the following components:

- Needs analysis: This is an analysis of the number of female employees who will benefit from the programme, available resources, job settings, and job types.
- Space: This should be a private area where the mother can express breast milk. This can be a ventilated, small office or cubicle or the employee's private office that can be locked. The room must be clean, and be equipped with a comfortable chair and a table, an electrical outlet, a basin for hand washing and breast pump cleaning, and a refrigerator or cooler for breast milk storage. This area should not be a bathroom.

⁴⁷ Buss IH; McGill F; Darlow BA; Winterbourn CC (2001): Vitamin C is reduced in human milk after storage: Acta Pñdiatr 90: 813 retrieved from http://mblive. interwall-projects.com/uploads/tx

⁴⁸ Riordan J; Wambach K (2010): Breastfeeding and human Lactation (4th Edition) Sudburg, Massachusetts: Jones and Bartlett Publishers.

⁴⁹ Raleigh NC (2002): Breastfeeding and Child care: United States Breastfeeding Committee: retrieved from http://www.usbreastfeeding.org/Portals/0/publications/ Child-Care-2002-USBC.pdf

⁵⁰ Childbirth educators Professional Forum: Breastfeeding trends in the private sector in South Africa: retrieved from http://babytalk.co.za/research

⁵¹ Breastfeeding in the news: Hale publishing (October 2011): Retrieved from: http://www.ibreastfeeding.com/newsletter/1969/12/breastfeeding-news

⁵² Ball TM; Wright AL (1993) Health Care costs of Formula Feeding in the first year of life: Pediatrics:103(4) 870-876

⁵³ Ortiz J; McGilligan K; Kelly P (2004): Duration of Breast Milk Expression among working mothers enrolled in an employee sponsored lactation program: Paediatric Nursing 30(2) 111-119.

⁵⁴ http://corporate.hallmark.com/OurCulture/Work-Life: Nursing Mother's Rooms

⁵⁵ http://www.womenshealth.gov/breastfeeding/government-in-action/businesscase-for-breastfeeding/easy-steps-to-supporting-breastfeeding-employees.pdf

- Equipment: This should be either the provision of appropriate lactation equipment or assisting employees to purchase this. The employer could also provide training and support to ensure that mothers understand how to use the equipment and are able to utilise the equipment at home.
- Time: This is an important factor in enabling the employee to continue breastfeeding at work. Parttime working, job sharing, and working from home may be considered. Another strategy, if feasible, is to allow the mother to bring her infant to work until the baby reaches a certain age. The Kansas Department of Health and Environment has the Infant at Work Programme that allows a mother to bring her infant to work until the age of six months. Childcare facilities, such as on-site childcare or a childcare facility near the work place may be provided to the employee, and if this is not possible, flexible break times to enable the mother to express milk should be considered.
- Policy: A task force, including a lactation consultant, must be appointed to write the policy regarding breastfeeding at work. Mothers must agree to the programme policy by signing consent and waiver forms, and identify an alternative caregiver for times when she may be temporarily unavailable.⁵⁶
- Support and evaluation: Managers, supervisors, and human resources personnel should be made aware of the above policy, and educated to respect the needs of the breastfeeding working mother. If an employee wellness programme exists, it can be utilised to drive the project. 57, 58, 59, 60 The programme should also be evaluated through the use of logs to determine how often the facility is used, the quality of the area, and satisfaction with the programme. Exit surveys should evaluate employee perceptions of and satisfaction with the programme. 61

Conclusion

Breastfeeding should be seen as the normal way to feed an infant, not an alternative or simply a choice. While some women are unable to breastfeed due to health or other reasons, they are the exception. The WHO, UNICEF, the American Academy of Paediatrics, and various other organisations advocate breastfeeding as the best way to feed an infant. In the developing world, breastfeeding saves lives, and may also improve the health of many, also in developed countries. Education is crucial in promoting breastfeeding as normal. This should start with better education of healthcare professionals, and educating HR practitioners on the benefits of providing support to lactating women in the workplace.

⁵⁶ Guide to strategies to support breastfeeding mothers and babies (2003). Strategy 5 Atlanta:U.S Department of health and Human services http://www.cdc.gov/ breastfeeding/pdf/strategy5-support-breastfeeding_workplace.pdf

⁵⁷ Riordan J; Wambach K (2010): Breastfeeding and human lactation (4th Edition) Sudburg, Massachusetts: Jones and Bartlett Publishers.

⁵⁸ Bar-Yam NB (2004): Nursing mother's at work: Corporate and maternal strategies to support lactation in the workplace; Journal for the association for research on mothering: Vol 6; No 2 (128) retrieved from http://pi.library.yorku.ca/ojs/index.php/ jarm/article/viewFile/4929/4123

⁵⁹ http://www.womenshealth.gov/breastfeeding/government-in-action/businesscase-for-breastfeeding/easy-steps-to-supporting-breastfeeding-employees.pdf

⁶⁰ Guide to strategies to support breastfeeding mothers and babies (2003). Strategy 5 Atlanta:U.S Department of health and Human services http://www.cdc.gov/ breastfeeding/pdf/strategy5-support-breastfeeding_workplace.pdf

⁶¹ http://www.womenshealth.gov/breastfeeding/government-in-action/businesscase-for-breastfeeding/easy-steps-to-supporting-breastfeeding-employees.pdf

CHAPTER SIX

Childcare in South Africa

Linda Biersteker

One of the greatest challenges for women in the South African workforce is the availability of childcare. The growth in nuclear and single-parent households, urbanisation, improved job opportunities, and job mobility have increased the need for non-family childcare for preschool and school-aged children. Women often bear the majority of parenting responsibilities for children, and lack of access to affordable, reliable childcare can be a major contributor to gender inequality.

Childcare responsibilities often undermine women's ability to work, and negatively influence their employment opportunities and advancement, as well as employers' retention of top-performing women. In addition to meeting the needs of parents, childcare programmes need to address the development and care needs of the child. Poor-quality childcare can be harmful to children's development and adjustment¹, exposing them to illness, poor nutrition, and inadequate protection, coupled with a lack of opportunities for learning and development.

There are two main benefits of good-quality childcare:

 It enables both parents to seek, enter, and remain in employment², which raises the household income, and is associated with increased maternal employment and enrolment in educational activities;³.
 4 and is associated with a range of positive child outcomes, including improvements in school enrolment and retention, as well as academic performance, improved social skills, a decline in anti-social behaviour, and higher rates of high school completion.^{5, 6, 7, 8, 9}

Further, the childcare sector provides a significant number of jobs and private income-generation opportunities. Workers in the early childhood sector in South Africa constitute the largest group of social service practitioners. ¹⁰ In 2012, some 36 500 social service practitioners were working in registered early childhood centres for children under the age of four years ¹¹; the quoted number excludes child minders and workers in the vast number of unregistered centres.

However, affordable, good-quality childcare is in short supply, and parents often struggle to find care that accommodates their particular work patterns and family circumstances. This chapter examines the policy and legislation framework for childcare, current childcare provision, and childcare options in South Africa, possibilities for workplace support for childcare, and the implications thereof for human resource practitioners.

¹ Belsky, J., Vandell, D., Burchinal, M., Clarke-Stewart, K. A., McCartney, K., & Oven, M., NICHD Early Child Care Research Network. (2007). Are there long-term effects of early child care? Child Development, 78 (2), 681–701.

² Doherty, G., Rose, R., Friendly, M., Lero, D., & Irwin, S.(1995). "Childcare: Canada can't work without it." Occasional paper 5. http://www.childcarecanada.org/resources/CRRUpubs/op5/5optoc.html

³ Ficano, C., Gennetian, L., & Morris, P. (2006). Child care subsidies and transitions from welfare to work: A three state comparison. Review of Policy Research 23(3): 681–98.

⁴ Hofferth, S. & Collins, N. (2000). Child care and employment turnover. Population Research and Policy Review, 19(4):357–395.

⁵ Engle, P. L., Black, M. M., Behrman, J. R., Cabral de Mello, M., Gertler, P. J., Kapiriri, L., et al. (2007). Strategies to avoid the loss of developmental potential in more than 200 million children in the developing world. The Lancet, 369, 229–242.

⁶ Reynolds, A., Temple, J., White, B., Ou, S., & Roberston, D. (2011). Effects by timing, dosage, and subgroups - School-based early childhood education and ege?-28 well-being, Science 333, 360 –364.

⁷ Walker, S. P., Wachs, T. D., Meeks Gardner, J., Lozoff, B., Wasserman, G. A., Pollitt, E., et al. (2007). Child development: Risk factors for adverse outcomes in developing countries. The Lancet, 369, 145–157.

⁸ Loeb, S., Fuller, B., Kagan, S., & Carrol, B. (2004). Child care in poor communities: Early learning effects of type, quality, and stability. Child Development, 75 (1), 47-45.

NICHD Early Childhood Care Research Network. (2005). Early child care and children's development in the primary grades: Follow-up results for the NICHD study of early childhood care. American Educational Research Journal, 42(3), 537-570.

¹⁰ HWSETA. (2009). Sector skills plan update for the health and social development sector in South Africa. Johannesburg.

¹¹ Biersteker, L. & Picken, P. (2013). Sector skills plan update 2013/4 – early childhood development. Johannesburg: ETDP SETA.

Policy and legislation

Childcare in South Africa is recognised as an important social service, but does not yet receive sufficient publicor private sector support. Childcare is primarily the responsibility of the Department of Social Development, and is regulated by the Children's Act 38 of 2005. The Act requires of the department to have strategies aimed at ensuring a national spread of partial-care facilities and a properly resourced, co-ordinated, and managed early childhood development system. It further provides for the registration of childcare programmes, but does not obligate the funding of adequate and affordable childcare, though it does provide that public funds may be allocated to childcare services, with poor children and those with disabilities receiving priority for public investments.

South Africa has ratified the Convention on the Elimination of All Forms of Discrimination against Women (CEDAW). Among the measures foreseen to prevent discrimination and ensure women's effective right to work is Article 11 2(c): "To encourage provision of the necessary supporting social services to enable parents to combine family obligations with work responsibilities and participation in public life, in particular through promoting the establishment and development of a network of child-care facilities."

Childcare has, to date, not been a prominent worker or organised labour issue. COSATU has periodically referred to the lack of childcare provisions, for example, at its 2003 Congress and in a 2007 Women's Day statement. A survey of nearly 3 000 formal economy workers in metropolitan areas (with an average monthly income of R 10 000 per household) found that only 7% of women (and 1% of men) mentioned childcare facilities as something they wanted from their employers. Only 1% of the sample reported having childcare at work. While only 16% of women were satisfied with their union's efforts regarding childcare, 90% were satisfied with their childcare arrangements, which consisted mostly of relatives, pre-schools, or hired helpers. Most respondents perceived childcare to be a low priority for unions.12

In many developed countries, childcare provision has been incentivised through tax concessions for employers and employees. Corporate funding has been a driver of growth for United Kingdom childcare markets in recent years, with employers increasingly

funding childcare for employees through the 2000s, because of the introduction of tax relief for employers on childcare vouchers from April 2005.13 However, there are no such incentives in South Africa, and employers are not obliged to provide childcare support other than statutory provisions for maternity leave and family responsibility leave. A welcome development signalling commitment to supporting family services for employees is the Department of Public Service and Administration's Draft Guideline for Childcare Facilities in the Public Service. 14 This arose from the 2008 Employee Health and Wellness (EHW) Strategic Framework for the Public Service. A survey of nearly 300 (higher-post category) Department of Health and Social Development employees, drawn from three provinces, found that 83% of respondents were in favour of workbased childcare facilities. Workplace childcare facilities are currently being piloted in nine provinces. 15

Childcare provision in South Africa

Childcare choices other than care by family members, which may be unpaid or compensated in kind, include:

- Care at home (nannies, au pairs, or domestic workers): Most care at home, other than by family members, is provided by nannies and domestic workers. Au pairs are a relatively small group, generally serving higher-income families. Training courses for nannies are available in the larger cities (these are usually focusing on first aid, health, and nutrition), but are optional.
- Child minders (day mothers): Child minders offer care for up to six children in their own homes.
 This form of care is often preferred for infants and toddlers, and for parents who work long or flexible hours.
- Early childhood development centres/ crèches:
 These usually offer full-day services. Fees for babies and toddlers are usually higher than for older children, because a higher adult-child ratio is required.
- **Pre-primary classes:** This is an increasingly common form of provision through the pre-primary year, which is the first year of formal schooling in South Africa (Grade R), but, as it is educationally

¹² National Labour and Economic Development Institute (NALEDI). (2006). Workers' survey for COSATU Johannesburg: NALEDI.

¹³ Blackburn, P. (2013). Future directions for a mature UK childcare market. Lloyd, E. & Pen, H. (Eds.). (2013). Childcare Markets. Can they deliver an equitable service? University of Bristol: Policy Press 43 –59.

¹⁴ Department of Public Service & Administration. (2011). Draft guideline for child care facilities in the public service. Pretoria: DPSA.

¹⁵ Communication DPSA. October 2012 (in context of current national ECD policy development process).

focused, the hours may be limited to those of formal schooling, in which case after-school care (after-care) becomes a need for some children.

• After-school care services: Also known as aftercare services, these are for children who attend a primary or secondary school. The after-care service includes the provision of meals, homework support, sporting activity support, life skills education and guidance, and counselling. After-school services are usually provided for a group of children, and not on an individual basis.

In addition to helping working parents, after-care services play a critical role in protecting and developing school-age children, as well as in supporting their education. Good after-school programmes can offer individual attention to children, mentorship, targeted enrichment, group support, and social education, and reduce the likelihood that children will engage in risky social behaviours such as substance abuse and involvement in gangs, and reduce the likelihood of early pregnancy.¹⁶

Current availability of childcare

South Africa does not have comprehensive national or provincial data on childcare provision, and existing data relate to children up to Grade R. No national data are available on after-school care provision.

The most recent data (2013) on attendance of early childhood development (ECD) centres and Grade R childcare provision are provided in Table 1. A total of 35.7% of children aged below five years were attending ECD programmes. This total does not include day mothers/child minders, and the total reflects some ECD centres that only offer a part-day programme, but the majority of ECD centres offer full-day care. What the data clearly demonstrate is that attendance of such programmes increases by age group. Nearly 80% of children in ECD programmes attend Grade R, and 96% of these are in public primary schools, where after-care is very limited.

Table 1 Percentage distribution of attendance of children aged 0 - 5 years of an ECD centre by age or Grade R class

Infants	1 – 2 years	3 – 4 years	Grade R 2011
7.2	28.1	57.4	79

Sources: 0 – 4 Statistics SA 2013 Grade R EMIS data /ECD Survey, reported by Spaull (2014)20.

Older data from the National Income Dynamics Study 2008²¹, shown in Table 2, provide a breakdown that includes information on provision through community-based day mothers, and distinguishes between crèches and pre-primary classes.

Table 2: Percentage of children aged 0 - 6 years in different out-ofhome care settings, by age

Setting	Children aged 0-2	Children aged 3-4	Children aged 5-6
Primary school (Grade 1 or above)	0	0	26
Grade R	0	4	23
Pre-primary/ Pre-school	0	5	11
Crèche/ Educare centre	8	27	21
Day mother/Gogo/ Domestic worker	26	14	6
Other	1	1	0
None	64	50	12

Source NIDS, 2008.

The key message from both tables is that most children are cared for at home, and out-of-home care of the youngest children, who are most developmentally sensitive, is mostly unregulated and informal. This does not mean that centre-based care is the best option for very young children; however, care by child minders needs to be better supported and regulated to ensure that it is of good quality.

¹⁶ PASCAP Trust. (2008). Western Cape After School Care Summit Report. Cape Town: PASCAP Trust.

¹⁷ There is an audit underway and it should be completed by April 2014. Data from the Department of Education's Nationwide audit of ECD provisioning in 2001 indicates that 88 % of ECD sites operated for more than five, but less than ten hours per day.

¹⁸ Statistics South Africa (2013). South Africa's young children: Their family and home environment, 2012. Pretoria: Statistics South Africa.

¹⁹ Department of Education. (2014). Education statistics in South Africa. Pretoria: Department of Education.

²⁰ Spaull, N. (2014). Grade R in South Africa based on data from RESEP (Research on Socio-Economic Policy) Stellenbosch University. Presentation to the Catholic Parliamentary Liaison Office Roundtable Discussion, 7 February 2014.

²¹ The National Income Dynamics Study (NIDS) is a national panel study in South Africa. The study began in 2008 with a nationally representative sample of over 28 000 individuals in 7 300 households across the country. The survey continues to be repeated with these same household members every two years. http://www.nids.uct.ac.za/about/what-is-nids

Public monitoring of and support for different forms of childcare and education

Child minders operate as private providers, and are common in areas where there are employment opportunities for women. Because this form of childcare is not regulated by the Children's Act, little is known about its extent and quality, except that it is popular because it is convenient, flexible, and often more affordable than centre care. Child minders are required to comply with municipal health standards, but this is seldom enforced. In many parts of Europe and North America, as well as the United Kingdom and Australia, this is the most prevalent form of provision for the youngest children, and is highly regulated and supported.²²

ECD centres serving children under school-going age are rarely provided by government; these are usually private businesses or non-profit organisations. This has resulted in widely varying access- and quality levels. Centres must register with local authorities and the provincial Department of Social Development. This includes registration of the facility, to ensure health and safety standards, as well as registration of the programme for learning and development. Provincial social development departments provide a per-child subsidy to registered non-profit centres for children from low-income homes.²³ The daily subsidy for 2013/14 was R 15 per day. Although subsidies increased from approximately R422 million in 2007/2008 to R1.6 billion in 2013/14, and target children from poor homes, the centre-based funding model does not support the poorest and youngest children, leading to them being unable to attend ECD centres.

As seen above, centre provision is skewed towards older children. Furthermore, poor children of all ages tend to be excluded from centres, because it is difficult to meet registration requirements. Most ECD centres charge fees, as the subsidy does not cover all costs, and there are very few ECD centres.

In fact, less than 20% of the poorest 40% of children were subsidised in $2012.^{24}$

Grade R classes are registered with the provincial Department of Basic Education, which then provides a subsidy and learning and teaching resources, and monitors the quality of the programme and the use of resources. The service is free in no-fee public schools, but not where Grade R classes operate from community-based ECD centres.

After-school care services also require registration in terms of the Children's Act. Unlike ECD centres, only registration of the facility is required, and there are no educational programme guidelines. As for ECD centres, registered non-profit after-care programmes are eligible for a subsidy from the Department of Social Development, for children whose parents earn below a certain income level. This after-care subsidy is usually calculated at half of the full-day subsidy paid to ECD centres. Not all provinces support after-school services, and when they do, this forms a limited part of the provincial budget.

The dimensions of quality childcare

To ensure that children develop to their full potential, good-quality care and education are essential. Local studies confirm that poor children often receive poorquality early care and education programmes, and that, overall, the quality of childcare in South Africa tends to be adequate rather than good.^{25, 26} Widely accepted dimensions of quality include the physical setting, the adult-child ratio, group size, carer/teacher qualifications, play materials, and adult-child interactions that are warm and responsive, and that promote learning.^{27, 28, 29}

²² http://www.ofsted.gov.uk/resources/factsheet-childcare-requirements-for-childcare-register-childminders-and-home-childcarers http://www.decd.sa.gov.au/childrensservices/pages/earlychildhood/familydaycare/http://www.nccp.org/publications/pub_720.html

²³ Provinces apply their own means test income thresholds. In 2011, the North West threshold was R1800 per month, while the Western Cape was R3000 per month. Giese, S., Budlender, D., Berry, L., Motlatla, S., & Zide, H. (2011). Government funding for early childhood development: Can those who need it get it? Cape Town: Ilifa I abantwana.

²⁴ Barberton, C. (2013). Government funding of centre- and community-based early childhood programmes prior to grade R. In: Berry, L., Biersteker, L., Dawes, A., Lake, L., & Smith, C. (Eds.). South African Child Gauge 2013. Cape Town: Children's Institute, University of Cape Town.

²⁵ Dawes, A., Biersteker, L., Hendricks, L., & Tredoux, C. (2010). Western Cape Department of Social Development 2009 audit of early childhood development site quality. South Africa: Human Sciences Research Council & Early Learning Resource Unit.

²⁶ Van der Berg, S. et al. (2011). Tracking public expenditure and assessing service quality in early childhood development in South Africa. Pretoria: Departments of Basic Education, Social Development and UNICEF http://www.unicef.org/ southafrica/SAF_resources_pets.pdf

²⁷ Myers, R. M. (2006). Quality in programmes of early childhood care and education [ECCE]. Background paper prepared for the Education for All Global Monitoring Report 2007. Strong foundations: Early childhood care and education. Paris: UNESCO.

²⁸ Sylva, K., Taggart, B., Siraj-Blatchford, I., Totsika, V., Ereky-Steven, K., Gilden, R., & Bell, D. (2007). Curricular quality and day-to-day learning activities in preschool. International Journal of Early Years Education, 15(1), 49–65.

²⁹ Fukkink, R. G. & Lont, A. (2007). Does training matter? A meta-analysis and review of caregiver training studies. Early Childhood Research Quarterly, 22, 294–311.

The programme needs to be appropriate for the age and developmental level of the child. For children up to the age of three years, in addition to health, hygiene, and nutritional inputs, this involves active exploration of the environment through their senses, and mastering physical actions and language. Attachment to supportive caregivers who engage with the children, touch them, talk to them, and listen is a vital component of quality care. From the age of three to five years, in addition to supportive care, children need stimulation that prepares them for school, including the development of social skills and group learning experiences. While stimulation of all the developmental domains is important, there needs to be a greater focus on literacy and maths skills.³⁰

Employer childcare support

In view of the importance of childcare for both women workers and their children, employers can assist parents to manage their work and family obligations in a number of ways. Employers who provide childcare support usually do so in order to attract and retain staff, reduce absenteeism, and improve productivity. 31, 32 Research in the United Kingdom has shown that women are twice as likely to return to work after they have children if the employer provides some childcare support. 31 In the United States, a study of companies that offer on-site childcare to their employees found that turnover was nearly 50% lower for employees who used the centre, compared to other workers. 34

Another national survey in the United States found that 19% of employees in companies with childcare service options indicated that they have turned down other job opportunities because these did not offer work-site early childhood care.³⁵ Employees' decisions to accept and continue employment, to recommend

the employer, and to work overtime were positively affected by the employer's provision of on-site or off-site childcare. Provision of childcare also had a positive effect on employees' morale and perceptions of their job performance, and turnover rates were greatly reduced.^{36, 37} Childcare support has also been found to reduce absenteeism and loss of work time^{38, 39}, and also improves productivity in various ways, such as better relations with staff, increased commitment, reduction of stress, and improved concentration on the job.⁴⁰

Factors influencing whether employers are sensitive to childcare issues include size and stability of the workforce, a high percentage of female workers, and union- and worker demand. The use of casual labour militates against employer support for childcare. This is evident on farms, where employer support of care for farm workers' children is often provided on a seasonal basis. Furthermore, in hospitals, which employ many women, it is often only offered on a shift basis.

Corporates who hope to retain professional staff and have a large female staff complement have started to offer on- or near-site facilities. Examples of South African organisations that provide good childcare are the Industrial Development Corporation, Old Mutual, and First National Bank, as is the initiative of the Department of Public Works and Administration, referred to above in the section on policy and legislation. Childcare programmes are less common in the manufacturing sector, but BMW's Rosslyn Factory is a well-known example. This facility, and an early learning centre at their Midrand offices, resulted from a NUMSA intervention in the late 1980s, when large numbers of women were employed, which increased the need for childcare.

Workplace programmes are one mechanism for making childcare more accessible to working parents in the formal sector. Parents need to be able to choose the provision they feel is appropriate for their children's needs and for their working and personal lives. Some types of workplace assistance include:

³⁰ Ebrahim, H., Seleti, J., & Dawes, A. (2013). Learning begins at birth: Improving access to early learning. In Berry, L., Biersteker, L., Dawes, A., Lake, L., & Smith, C. (Eds.). South African Child Gauge 2013. Cape Town: Children's Institute, University of Cape Town.

³¹ Biersteker, L. (2013). Safe and affordable child care. Background Paper 6 for Richter, L., Biersteker, L., Burns, J., Desmond, C., Feza, N., Harrison, D., Martin, P., Saloojee, H., & Slemming, W. (2012). Diagnostic review of ECD sector. Pretoria: Department of Performance Monitoring and Evaluation. Accessible at http://www. gov.za/documents/download.php?f=170644

³² Brown, B., Ramos, M., & Traill, S. (2008). The economic impact of the early care and education industry in Los Angeles County. Oakland, CA: Insight Center for Community Economic Development.

³³ Forth et al. (1997). Family friendly working arrangements in Britain 1997, DfEE Research Report No. 16, cited in UNISON, 2004.

³⁴ Bright Horizons Family Solutions. (2003). The Real Savings from Employer-sponsored Child Care: Investment Impact Study Results. Boston, MA: Bright Horizons.

³⁵ Simmons College. (1997). Benefits of Work-Site Child Care as cited by Bright Horizons Family Solutions.

³⁶ Dawson, A., et al. (1984). An experimental study of the effects of employer-sponsored child care services on selected employee behaviours. Chicago: CSR, Inc. & Foundation for Human Service Studies, Inc.

³⁷ Kossek, E. E. & Nichol, V. (1992). "The effects of on-site child care on employee attitudes and performance." Personnel Psychology 45(3): 485-509.

³⁸ Hein, C. & Cassiner, N. (2010). Workplace solutions for child care. Geneva: International Labour Organisation.

³⁹ Brown, J. (2002). How Does High-quality Child Care Benefit Business and the Local Economy. Seattle: Economic Policy Institute.

⁴⁰ Brown, B., Ramos, M., & Traill, S. (2008). The economic impact of the early care and education industry in Los Angeles County. Oakland, CA: Insight Center for Community Economic Development.

- a company (usually on-site) childcare centre;
- facility or facilities in the community that are linked to the workplace;
- some form of financial support (childcare vouchers, funds, or subsidies); and
- advice and referral to reputable childcare facilities (see Table 3).

Table 3, adapted from an ILO review of workplace solutions for childcare⁴¹, summarises these options, together with the pros and cons of each for workers and employers.

Table 3: Evaluation of different types of workplace support

	1.00		B
Type of support	When appropriate	Advantages	Disadvantages
1. On-site facilities	If there are many workers at the same location.	For workers:	For workers:
	If most workers can easily bring their children to work, i.e. no problems with transport.	Having children nearby.	May be difficult to bring the child to work, e.g., where parents use public transport. Little choice of subsidised provider.
		Childcare hours are related to working hours.	
	If there is a lack of day-care facilities in the community.	Addresses the problem of finding childcare.	
	When workers work atypical hours or shifts that make	Can save on travel time to an off- site childcare facility.	There may be a waiting list. May reduce worker mobility to
	community facilities inadequate.	Facilitates breastfeeding.	other companies if they do not wish to change their childcare
	When there are breastfeeding mothers.	For employers:	provider. ⁴³
		Can be useful for attracting and	For employers:
		retaining women after maternity	Can be expensive.
		General retention of workers with	May be difficult to manage.
		young children.	Number of children who can be accommodated is fixed, which may be inadequate.
		Larger employers are likely to have the financial resources to set up facilities with an immediate customer base to ensure financial viability, and can directly monitor and control cost and quality. ⁴²	
2. Linking with facilities in the	When the workforce is scattered.	For workers:	For workers:
community (reserving or paying for a number of places at a childcare facility, and negotiating discounts)	When it is difficult to bring children to work.	May offer a wider choice of providers.	Range of providers is often limited.
	When the workplace and surroundings are not a suitable for children.	May be more convenient.	Financial advantage may be less
		Lower fees through employer- negotiated discounts.	than that offered by a company facility.
	When facilities exist in the community.	For employers:	For employers:
		Saves investment in own facility.	May be time-consuming to negotiate with different providers.
		More flexibility in adapting to the changing needs of staff.	May be difficult to ensure the quality of partner facilities.
		Ensures that all eligible staff members have access.	

⁴¹ Hein, C. & Cassiner, N. (2010). Workplace solutions for child care. Geneva: International Labour Organisation.

⁴² Paull, G. (2013). Childcare markets and government intervention. In Lloyd, E. & Penn, H. (Eds.). Childcare markets. Can they deliver an equitable service? University of Bristol: Policy Press, pp. 227–246.

⁴³ Ibid.

Type of support	When appropriate	Advantages	Disadvantages
3. Financial support (income tax exemptions, funds, vouchers)	When a company is small, with insufficient staff to justify more a complex system.	For workers:	For workers:
		Choice of childcare arrangements.	Financial gain may be limited when the voucher or exemption is based on a salary reduction. Parent must still find an appropriate care facility.
	Certain funds require significant numbers of employees of one employer or of a group of employers.	Often includes school-age	
		children, and provides for after- school care.	
	If there is a government subsidy for childcare or tax benefits for employers or employees.	Not limited by waiting lists (available to all who are eligible).	Value of vouchers may not cover good-quality care.
		For employers:	For employers:
		Less administrative effort is needed.	Little control over how money is spent.
		Can lessen the amount of support required from the company.	
4. Advice and referral	When different types of facilities	For workers:	For workers:
	are available in the community.	Helpful when it is difficult to find	May not help with the cost of
	When workers may be eligible for government benefits, but do not utilise benefits, as they do not know how to access these.	or choose childcare.	care.
		Useful when advice on government benefits is needed.	For employers:
	When workers are having difficulty finding facilities.	For employers:	May not be useful for employees, and therefore under used and an unnecessary expense.
		Can be low-cost.	
		Less work time is spent on finding solutions.	

Key points and implications for human resource practitioners

This chapter has highlighted the benefits of good-quality, affordable childcare as a support for working women, together with its critical importance in ensuring optimal child protection and development. The challenges were noted: the shortage of services, especially for poor working women, the lack of priority given to childcare by the state, and limited efforts by employers and, sadly, also by workers to address childcare.

In conclusion, some of the ways that HR practitioners could assist include:

- Providing worker education on the importance of good-quality childcare and what to look for in a childcare service, as well as how to support children's development at home. This could be supplemented by having a register of approved facilities;
- Flexible work arrangements to allow for children's health needs, and for parents to attend special events involving their children;

- Direct support for childcare, either through a workplace facility, a relationship with quality childcare centres where it might be possible to arrange bulk discount rates by ensuring take-up of a number of places, or a voucher system;
- Support for childcare during extended hours or requested overtime, and developing a network of providers or a drop-in facility at the workplace;
- Lobbying for additional sources of funding; for example, Old Mutual was reported to be exploring options with the South African Revenue Services to allow childcare to be a pre-tax-deductible for Old Mutual employees utilising this service; 44
- Employer organisations and groups can engage in policy advocacy to improve public measures for childcare.

⁴⁴ Hein, C. & Cassiner, N. (2010). Workplace solutions for child care. Geneva: International Labour Organisation.

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Anita is actively involved in collaborative and dialogue-based change processes regarding women's identity and leadership development. Through her experience as an operations manager for a consulting company, head of a for-profit unit at a university, researcher, as well as a consultant in the fields of human resources and organisational development, she assists clients to effectively deal with gender-related workplace needs. She is the editor for Africa of the Equality, Diversity and Inclusion – An International Journal, and editor of the annual Women's Report of the SABPP.

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- Award recognition for research excellence.



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