*The use of cannabis seeds as a natural contraceptive: A case of Zambia*

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## *Introduction*

The link between population growth or fertility rates and socio-economic development is unquestionable, hence, the increasing call for more investment in family planning programs and research (Phumaphi, 2011; Bongaarts et al, 2012; Cleland et al, 2006). Zambia is a country in Sub-Sahara Africa with one of the highest fertility rates in the world, high unmet need for modern contraceptives, high rate of teenage pregnancy, high HIV/AIDS prevalence rate, high occurrence of early marriages and a predominantly young population (Central Statistical Office, 2009; 2014; World Population Review, 2017). In response to this harsh reality, the Zambian government is determined to transform the economy by taking advantage of the opportunity that this demographic dividend presents. That is, a period of rapid economic growth as a result of a large young working population and reduced fertility rates coupled with enhanced good governance, sustained investment in education, health and increased job creation (Ministry of Finance, 2015).

Even though 50%-70% of women in Zambia use some form of contraception and there is almost universal awareness and knowledge about family planning, uptake of modern contraceptives still remains low (United Nations, 2015). Given a literacy rate of 68% among women aged 15- 49 years and a projected 67% of intent to use modern contraceptives (CSO, 2014), it is clear that there are more complex barriers to the uptake of modern contraceptives beyond the frequently cited barriers of constrained access to health centres, frequent stock outs of preferred contraceptives, cost, lack of information about family planning (United States Agency for International Development, 2014) and the social barriers such as disapproval of spouse, relatives and religious norms (Muanda et al, 2016). Moreover, in the recent past, the fear of side effects of modern contraceptives such as weight gain, headaches and irregular periods has emerged as a very strong barrier because of this; myths, fears and misperceptions about modern contraceptives such as reduced sexual pleasure, infertility and health concern (cancer) have been compounded (Blackstone et al, 2017; Gueye et al, 2015). As a result women, especially in Africa increasingly prefer more concealable contraceptives with less side effects as a means of spacing births. In the face of this, some women resort to the use of herbs such as cannabis as a form of natural contraceptive perceived to have negligible side effects.

## *Purpose of the Research*

From historic times, cannabis has been used as a medicinal herb for treatment of menstrual cramps and to ease child birth in addition to being a remedy for pain, anxiety, depression, insomnia, appetite loss and asthma etc. (Australian National Council On Drugs [ANCD], 2014) but because of lack of prescribed dose and length of treatment resulting in either no effect or adverse effect, it was removed from the register of medicines (Copeland & Clement, 2014). However, evidence from current clinical medical cannabis research has reignited the potential of medicinal cannabis for possible treatment of various health conditions and diseases such as epilepsy, cancer and AIDS (Grotenhermen & Müller-Vahl,2012; Carlini et al, 2017; Newton-Howes & McBride, 2016). Nonetheless, the debate on whether to fully regularize medical cannabis still continues due to the lack of clinical evidence on effective dosing, route of administration, side effects, myriad plant compositions and the blurred line between clinical and recreational cannabis (Carliri et al, 2017;

Newton-Have & McBride, 2016). The ANCD (2014) describe the current debate on the use of medicinal cannabis as complex because it is difficult to explicitly and simultaneously address medical and scientific questions as well as legal and ideological questions. Perhaps, this explains why medical practitioners are reluctant to recommend the use of medicinal cannabis even in cases where there is a legal framework that guides its use (Carlini et al, 2017).

Notably, the available high quality but scanty evidence of the efficacy of medicinal cannabis is biased towards clinical trials in the treatment of epilepsy, multiple sclerosis and symptoms of pain, nausea, vomiting and appetite in cancer patients using cannabis plant or herb (University of Sydney, 2016). There are no clinical trials on the cannabis seeds, specifically as a natural contraceptive. Therefore, the claimed use of cannabis seeds as a natural contraceptive among women in Zambia (Lusaka Times, 2006), is a peculiar case that needs in-depth understanding of how this is used in order to either deter mass use for feared long- term side effects or spur technical clinical research in the properties of cannabis seeds in relation to reproductive biology.

### *Methodology*

This exploratory study of the use of cannabis seeds as a form of contraceptive will rely on a minimum of 30 face to face in-depth interviews of personal experiences. Saturation point technique will be relied upon to determine the sample ceiling point, by identifying the point when no new perspectives, insights, themes or information will emerge from the respondents (Townsend, 2013). This is a common practice in qualitative research and is appropriate for this study for purposes of tapping into the possible indigenous knowledge about the cannabis seed. Attention will be paid to the source and type of the seed, reason for opting to use it as a contraceptive and reasons for using the cannabis seed as opposed to the actual cannabis herb or plant, indigenous knowledge about possible dose levels and length of treatment. These will be linked to sexual behaviour and fertility of the respondents in order to qualitatively draw or dispute the potential use of medicinal cannabis seeds in the prevention of pregnancy. The data will be analysed using manual content analysis using the guidelines provided by Bender and Ewbank (1994). In addition, coding scheme and verbatim techniques will be used to validate the results.

### *Implications of the Research Results*

This study will use social research techniques in order to explore a peculiar contraceptive practice (i.e. cannabis seeds). While the use of natural contraceptives and herbs is reported in some population segments in Africa, few studies specifically explore these practices in detail. Therefore, the results of this study can be used to design appropriate, evidence based and target specific Social and Behaviour Change Communication about natural or traditional contraceptives. This is in view of the wide spread fear of side effects of modern contraceptives amid myths and misinformation in many African countries. Furthermore, the results can also be used to train family planning service providers on how best to handle peculiar contraceptive practices in certain societies. This preliminary study will provide evidence to consider a) the need to understand user perspectives and concerns b) to continue research into traditional medicines if there are therapeutic values and pathways in various settings.

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