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RETURN OF INCIDENTAL FINDINGS TO HEALTH RESEARCH PARTICIPANTS: AN ETHICO-LEGAL INQUIRY IN THE SOUTH AFRICAN CONTEXT

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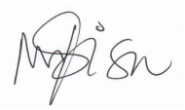
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August 2021

DECLARATION

I, Edward Mukwaya, hereby declare that this research report submitted for the degree Master of Science in Medicine (Bioethics and Health Law) at University of the Witwatersrand, is my own original work and has not previously been submitted to any other institution of higher education. I further declare that all sources cited or quoted are indicated and acknowledged by means of a comprehensive list of references.



_____

Signature

26 August 2021

_____

Date

DEDICATION

To my late parents,

Boniface and Mary Immaculate Kategano

ACKNOWLEDGEMENTS

I owe a debt of gratitude to:

- My family and friends for their love, support, encouragement and prayers;
- Dr N. M. Tsotsi and Prof S. Mahomed, my supervisors, for their guidance and support, as well as their patience and understanding, as the writing of this report coincided with a period of personal loss and grief;
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ABSTRACT

Incidental findings (IFs), defined as discoveries with health or reproductive significance that are beyond the scope and aims of a particular study, are the subject of important debate in health research. Central to this debate is whether researchers have a duty and obligation to disclose them to research participants. The ethical and legal frameworks in South Africa do not explicitly address IFs and do not provide guidance on how they should be managed which creates an ethico-legal gap. This research examined the ethical and legal frameworks to determine whether they implicitly provide ethical and legal grounds and justification for the return of IFs to research participants in the South African context. The research concluded that researchers have an ethical and legal duty to return IFs of clinical utility and that are actionable. This is supported by the ethical principles of beneficence and respect for autonomy, and the ethical theories of deontology and utilitarianism. From a legal perspective, wide interpretation of South African laws and *quasi* legal guidelines show implicit support for the return of IFs. The research recommends that national guidelines for health research in South Africa be amended to provide direct and explicit guidance on how IFs should be managed. Further research to obtain the views of researchers, participants and other stakeholders on the return of IFs is also recommended.

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LIST OF ABBREVIATIONS

ACMG	American College of Medical Genetics and Genomics
CIOMS	Council for International Organisations of Medical Sciences
DoH	Department of Health
H3Africa	Human Hereditary and Health Initiative in Africa
HBGRD	Human Biobanks and Genetic Research Databases
HPA	Health Professionals Act
HPCSA	Health Professionals Council of South Africa
HREC	Health Research Ethics Committee (HRECs for plural)
IF	Incidental Finding (IFs for plural)
MRI	Magnetic Resonance Imaging
NASEM	National Academies of Sciences, Engineering and Medicine
NHA	National Health Act
NHREC	National Health Research Ethics Council
OECD	Organisation for Economic Co-operation and Development
PAIA	Promotion of Access to Information Act
POPIA	Protection of Personal Information Act
SA	South Africa (also South African)
SAMRC	South African Medical Research Council
UN	United Nations
UNESCO	United Nations Educational, Scientific and Cultural Organisation
WHO	World Health Organisation
WMA	World Medical Association

CHAPTER ONE

INTRODUCTION AND RESEARCH PROBLEM

1.1 Introduction

An incidental finding (hereinafter called an IF, while IFs denotes the plural) in health research is defined as "a finding concerning an individual participant that has potential health or reproductive importance and is discovered unexpectedly in the course of conducting research but is beyond the aims and scope of the study" (Wolf *et al*., 2008). IFs are distinctly different from primary and secondary research findings. A common example of an IF is the detection of a brain tumour on a scan of a participant in an imaging study investigating brain activity and intelligence. In this case, the discovery of the brain tumour, although clinically significant, is not related to the purpose of the investigation (Illes *et al*., 2006). IFs can be related to an individual participant or to more than one person such as family members or members of a community as the case may be in genomic research where researchers are able to detect disease-causing gene mutations (Souzeau *et al*., 2016). IFs of misattributed paternity have also been reported in genomics research (Ewuoso, 2016).

1.2 Prevalence of IFs in Health Research

The prevalence of IFs varies greatly with the kind of tests and procedures involved in a research project and the demographics of the participants (Bollinger *et al.,* 2012). Literature suggests that IFs are most prevalent in studies that involve imaging. The scale at which imaging techniques are deployed in health research worldwide has increased markedly over the last 20 years. Several studies in neuroscience, cognitive science and behavioural science involve obtaining and

examining images of the whole body or sections of the body such as the brain. Although these studies generally recruit healthy volunteers, reports indicate an IF prevalence of 2.7% in studies involving brain magnetic resonance imaging (MRI) and 32% in studies involving whole-body MRI (Bunnik & Vernooij, 2016). Landmark advances in genomic research such as whole genome sequencing which have allowed for the processing and generation of large amounts of genomic data, have contributed to an increase in the number of IFs reported in this field of research (Hallowell *et al*., 2015; Cassa *et al*., 2012). The American College of Medical Genetics and Genomics (ACGM), in a published statement indicated the prevalence of IFs to be at 12% of all genomic sequencing reports with 1% of them being considered medically relevant (ACGM, 2014; Townsend *et al*., 2012). Also, recent studies approximate the prevalence an IF of misattributed paternity to be at 10% for general populations and IF of extracolonic lesions in 15% - 84% of participants (Miller, Mello & Joffe, 2008). From literature, there was no data on the prevalence of IFs in research conducted in South Africa (SA), however, it can be safely assumed that the figures would not be different from those reported in studies conducted in other parts of the world using the same techniques as the local population. This is because studies conducted in Europe and the United States of America included participants with similar demographics to those in SA.

1.3 Significance of IFs in Health Research

The management of IFs is an issue of increasing importance in health research because of the implications of both disclosure and non-disclosure. Once an IF has been detected, the decision to disclose or not to disclose has implications for both the participant and the researcher. For the participant, disclosure can have both favourable and unfavorable consequences; on the one hand it allows for timely intervention and treatment thus leading to medical benefit, while on the other

hand, it has the potential to cause harm in the form of psychological burdens and costs of follow-up testing and treatment. So, whereas a participant who is informed of a brain tumour and has access to healthcare for further management would benefit from being informed, a participant who is informed of a gene mutation that would lead to early onset of Alzheimer's disease, and who does not have access to adequate healthcare, will most likely suffer extreme anxiety with related social and medical harm. Not disclosing an IF of significant health or reproductive importance is ethically challengeable, even controversial, especially when the finding relates to a preventable or manageable health condition (Wolf *et al*., 2008). For the researcher, this presents ethical dilemmas, and these are well catalogued in literature (Miller, Mello & Joffe, 2008; Bunnik *et al*., 2017). Firstly, researchers are faced with the dilemma of whether they should actively detect for IFs or not. Secondly, once the IF has been detected, the question that remains unclear is whether it should be disclosed or not? Do they have a professional duty and ethical obligation to disclose IFs to participants, and do the participants have the right to know? There is also the challenge of what should be disclosed, to whom and when (Bunnik *et al*., 2017).

1.4 Ethical and Legal Frameworks for IFs in Health Research

According to Wolf *et al*. (2012), the management of IFs over the years has been largely based on the perspectives of members of particular research ethics panels. However, in the past 15 years there has been emerging consensus that IFs should be returned to health research participants. Several health research ethics committees (HRECs), especially in the developed world, have started formulating guidelines on how IFs should be managed. At the forefront of this trend are HRECs overseeing genomic research and imaging studies (Daack-Hirsch *et al*., 2013). At an international level, the Council for International Organizations of Medical Sciences

(CIOMS) provides guidance on IFs. Guideline 11 of the CIOMS ethical guidelines on health research involving humans stipulates that individual results whether solicited or unsolicited can be returned to donors of biological material. It further guides that the informed consent process must clearly stipulate the procedures for returning IFs and that participants should be able to choose whether or not to receive results of IFs (CIOMS, 2016). The World Medical Association (WMA) Declaration of Taipei on ethical considerations regarding health databases and biobanks also provides guidance on IFs management. Article 12 offers guidance on the informed consent process in the collection of data for biobanking, and stipulates that for the consent to be valid, participants must have been adequately informed about the procedures for return of IFs (WMA, 2016). The Human Heredity and Health in Africa (H3Africa) Initiative, which SA is party to, also recognizes the importance of returning IFs and has developed guidelines for their management (H3Africa, 2018).

Each year, hundreds of individuals enroll into health research projects in SA and hundreds more donate biological samples to biobanks for future research. The data generated from these research projects have the potential to create large numbers of IFs of significant health and reproductive importance. However, current national laws and ethical guidelines do not explicitly pronounce themselves on the subject of IFs. SA is party to the WMA and CIOMS and therefore adopting the guidelines of these bodies on the management of IFs, especially those of significant health implications, is consistent with the provisions of the Constitution of the Republic of South Africa, 1996. Section 32(1)(b) of the Bill of Rights stipulates that everyone has the right to any information that is held by another person which is required for the exercise or protection of any rights. The same Bill of Rights, in section 27(1)(a) provides for the right to have access to healthcare services including reproductive health. In addition, when interpreting the Bill of

Rights, section 39(1)(b) indicates that international law must be considered. The National Health Act 61 of 2003 (NHA) and the Promotion of Access to Information Act 2 of 2000 (PAIA), re-enforce the provisions of section 32 of the Constitution. In addition, the ethical principles of beneficence, distributive justice and autonomy support the return of IFs. The principle of beneficence aims to maximize the benefits from research while minimizing harm to the research participant. Distributive justice aims to ensure that participants and their communities benefit from research results, while the principle of autonomy aims to ensure that research participants are treated with respect and are permitted to exercise self-determination by being free to deliberate on choices and decisions about all aspects of their participation (Beauchamp & Childress, 2013). These principles are contained in the SA National Health Research Ethics Guidelines (National Department of Health, 2015).

1.5 Research Problem

There are arguments for and against divulging IFs to a research participant. Ethical and legal ramifications stem from these arguments. These relate to whether the results have the potential to benefit the participant directly or if they could cause harm. Even though several individuals in SA are enrolled into health research projects each year, many of which generate large amounts of IFs, the ethico-legal frameworks in the country do not explicitly address the subject of IFs and do not provide guidance on how they should be managed.

1.5.1 Research Question

This study asks whether it is ethically and legally right and justifiable to return IFs to research participants?

1.5.2 Rationale of the Study

Currently there is an ethico-legal gap in SA with regard to the management of IFs in health research. Current guidelines are not explicit on the subject of IFs which results in their poor management and regulation. Since many individuals take part in research each year, ethical and legal guidelines and ethical frameworks should address the way IFs should be managed. This research examines ethical theory as well as the ethical and legal frameworks in the SA context to determine whether research participants have the right to be informed of IFs and whether researchers have a moral obligation to return these findings. The research provides evidence to support the position that returning IFs to research participants is ethical and legal and that the option to receive IFs should be availed to research participants on the basis of the ethical principles of beneficence, distributive justice and autonomy, as well as the provisions of the Constitution, 1996.

1.5.3 Thesis Statement

There is sufficient ethical and legal basis to support the return of IFs to research participants. Because many individuals take part in health research in SA, with the potential to generate thousands of IFs of significant health importance, it is vital that ethical and legal frameworks in the country explicitly address the issue of IFs and provide guidance on how they should be managed.

1.5.4 Research Aim

The aim of this study is to discuss the issue of IFs from an ethical and legal perspective as it relates to the researcher's responsibility towards research participants regarding these findings in the SA context.

1.5.5 Research Objectives

The objectives of the study are:

1. To examine the ethical frameworks for health research in the SA context to determine whether returning IFs to research participants is ethically justifiable.

2. To examine the SA legal framework to establish whether it supports the return of IFs to research participants.

3. To provide a critical analysis of the different arguments for and against the return of IFs to research participants and to provide an ethical and legal basis to support the thesis statement.

1.6 Research Design

The research is a normative ethico-legal inquiry with a descriptive component. Normative ethics involves evaluating moral standards and behaviour in order to attempt to understand what people should do or ought to do. A normative ethico-legal inquiry is, therefore, a study that aims to evaluate what the ethical and legal actions around a subject ought to be. In studies of this kind, the ethico-legal questions take the form of; what ought the ethical guidelines recommend? What ought the law prescribe? What ought the law prohibit? (Sulmasy & Sugarman, 2010). The descriptive component of this study asked what facts are relevant to this ethico-legal inquiry. This was achieved by specific content analysis.

1.7 Research Methods

The research analyses the ethical guidelines, trends and current thinking as well as legal positions on the return of IFs to health research participants). I applied normative ethics to argue in support of my position on the concept in the SA context. The research is a normative, ethico-legal inquiry. It is based on desktop and library-based research. No new data was collected or analysed, and the research did not involve human participants. The research employed typical research methods and standards applicable to philosophical research. This primarily involved the interpretation and critical analysis of the most important texts, publications, postings, official statements, and government legislation to answer the research questions. Analysis of the relevant texts included the definition and clarification of concepts, the identification and criticism of assumptions, the analysis and evaluation of theoretical frameworks, and articulation of the most reasonable interpretation of significant concepts found in the sources. Sources of literature included, but were not limited to, research articles, books, Google Scholar, PubMed, government legislation websites and other academic search engines for gathering data.

1.8 Argumentative Strategy

I take the position that research participants have the right to receive information on IFs, and that researchers have a duty and obligation to share this information with individual participants. I argue that from an ethical point of view, the principles of beneficence, distributive justice and autonomy support this position. In addition, consensus exists that IFs of potential health importance have to be disclosed, and indeed the WMA Declaration of Taipei 2016 and the CIOMS guidelines of 2016 are explicit on this. From a legal perspective, I argue that the sharing of this information is consistent with the provisions of the Constitution of SA, 1996 under sections 32(1)(b) and 27(1)(a) of the Bill of Rights. It is therefore relevant and necessary for the

ethical and legal guidelines and frameworks governing health research in SA to explicitly pronounce themselves on the subject.

1.9 Ethics

This research did not involve the use of human participants or any biological material and data. It also did not involve access to confidential health data and/or records. A waiver was requested from the Chairperson of the Wits Health Research Ethics Committee (Human) and granted. (Annexure 1).

1.10 Research Outcomes

The outcomes of this research will contribute to the formulation of guidelines on the management of IFs in health research conducted in SA. I intend to make recommendations that will encourage the Department of Health's National Health Research Committee (NHREC) and other Health Research Ethics Committees in the country to seriously consider the issue of IFs and to formulate guidelines that offer explicit guidance on their management. In addition, I intend to submit a paper for publication to the South African Journal of Bioethics and Law. An opportunity to present at the South African Clinical Research Association's annual members' conference will also be sought.

1.11 Limitations

The major limitations to the research project were;

i. The inability to obtain sufficient literature on IFs specific to the SA context since little to no scientific research has been undertaken on the subject. There is also little anecdotal information on the subject from a SA perspective.

ii. Not much or enough has been written on IFs in ethical and legal documents.

1.12 Outline of the Research Report

Chapter 1 provides a background to IFs in health research including; a definition, prevalence as well as their ethical and legal significance. The chapter also articulates the research question, statement, aim, objectives and the study design.

Chapter 2 examines the ethical frameworks for health research in the SA context to determine whether returning IFs to research participants is ethically right and justifiable.

Chapter 3 examines SA laws, relevant regulations, statutory guidelines on health research, and international instruments binding on SA, to establish their position on returning IFs to research participants.

Chapter 4 provides a critical analysis of the arguments for and against returning IFs and further provides arguments to support the research statement.

Chapter 5 concludes the Research Report and provides recommendations.

CHAPTER TWO

ETHICAL CONSIDERATIONS

2.1 Introduction

This chapter examines the ethical frameworks for health research in the SA context to determine whether returning IFs to research participants is ethically right and justifiable. This chapter is aligned to objective 1 of the study.

2.2 Ethical Frameworks for Health Research

Ethics is the systematic study of norms and values in human conduct. Beauchamp and Childress (2013) define ethics as a term that describes the different ways of examining and understanding morality. Health ethics falls under a branch of ethics called bioethics. Bioethics (also called biomedical ethics) deals with ethical implications and applications of the health-related life sciences. It is typically concerned with the ethical questions that arise in the relationships between life sciences, biotechnology, medicine, politics, law, and philosophy (Beauchamp, 2003).

The question of whether or not to return IFs to participants presents an ethical dilemma for researchers (Miller, Mello & Joffe, 2008). An ethical dilemma exists when three conditions are present; firstly, one must be required to decide which course of action is best; secondly, there must be different courses of action to choose from, and; thirdly, no matter what course of action is taken, an ethical principle is compromised. In other words, no perfect solution exists, and the person seems condemned to moral failure (Lowe, 1959). Resolving ethical dilemmas is

approached in three ways. Firstly, the dilemma can be refuted by analysing it carefully and showing that the situation does not exist. The second approach recommends that the problem be reconsidered to check for new alternative solutions. Thirdly, one can use the value theory approach which involves choosing the alternative that offers the greater good or the lesser evil (Adelson, 1995). Bioethics most commonly takes the third approach, and this often involves applying ethical principles (Beauchamp & Childress, 2013) and, in some instances, ethical theory to the dilemma (Koski, 2017). I will apply this approach to the return of IFs.

2.2.1 Ethical Principles

This framework of ethical inquiry is founded on the four fundamental principles of biomedical ethics; autonomy, beneficence, nonmaleficence, and justice. These principles underpin the ethical duties and obligations of all those involved in biomedical endeavours. They are considered the basis for the guiding principles to ethical health research. While certain situations may demand the application of one principle more than another, all principles should be considered when analysing ethical issues in health research (Beauchamp & Childress, 2013).

2.2.1.1 Autonomy

The term autonomy derives from the Greek root words *autos* meaning "self" and *nomos* meaning "law" or "rule". Although used originally in reference to self-governing states in ancient Greece, its meaning has since extended to individuals. Autonomy (also called respect for autonomy) is defined as the individual's capacity for self-determination and to make decisions without undue pressure or coercion. The principle of autonomy acknowledges the right for autonomous agents to hold views, make choices and take actions based on their values and beliefs (Beauchamp & Childress, 2013). In health research, autonomy is expressed as the right to make informed

decisions. For participants who are capable of self-determination, this means that researchers should respect the participant's informed choices (*Belmont Report*, 1979). In practice, this is operationalised through the requirement for informed consent, a process by which the researcher informs the potential participant (or their legal representative) about the proposed research. This ensures that participants are not treated as a means to an end and coerced, deceived, or misled into participating in the research (Pugh, 2020). It is important to note that in SA, informed consent is a legal obligation that is provided for under section 12(2) of the Constitution (1996).

The ethical concept of informed consent requires that participants be provided with adequate and pertinent information about the research, which includes details on risks and reasonable benefits to be expected (*Belmont Report*, 1979). The discovery of IFs presents both risks and benefits to research participants. Moreover, certain types of research are highly prone to generating IFs. Researchers should establish, at the outset, what the participants' preferences are with regard to returning IFs and this should form part of the consenting process (Appelbaum *et al*., 2014). Shalowitz and Miller (2005) argue that informing participants of the possibility of discovering IFs and sharing them with consenting participants demonstrates respect for their choices and autonomy. It goes against this principle to treat participants as conduits for generating data without giving due consideration to their interest in receiving information about themselves that is derived from their participation. Opponents of this view have argued that a participant's wish to have access to IFs does not necessarily impose an obligation on the researcher to return them (Clayton & McGuire, 2012; Wolf *et al*., 2012). However, respect for autonomy still needs to be demonstrated through the consent process by clearly informing the participants that IFs will not be returned, thereby enabling them to decide whether or not to participate. (Graham *et al*., 2015). It is my view that the principle of autonomy renders strong

ethical support to the return of IFs to research participants and requires, in the first place, that the possibility of their discovery be disclosed to participants as part of the informed consent process.

2.2.1.2 Beneficence

The term beneficence is broadly considered to mean "to do good". Originating from common morality, the principle of beneficence places an obligation on individuals to contribute positively to the welfare of others. The ultimate aim of ethical research is to benefit mankind through the knowledge gained and discoveries made from the research (Beauchamp & Childress, 2013). In the context of health research, the principle of beneficence imposes a duty on the researcher to promote the participant's welfare. Research has the potential to uncover information that is beneficial to participants' health management, life planning, or psychological well-being (Ravitsky & Wilford, 2006). In line with this principle, some bioethicists argue that researchers have an ethical obligation to return findings that have value to participants. Beneficence requires that researchers act in the best interests of participants. They should assess the risks and benefits of disclosing IFs and ensure that benefits are maximised while harms are minimised (Miller *et al*., 2008; Dal-Ré *et al*., 2014). This means that while researchers have an ethical duty and obligation to return significant findings, and that participants have the right to know, an assessment of the benefits and risks of disclosing must be made. For example, it can be considered beneficial to return an IF that reveals a brain tumour to a participant in a behavioural study that involves brain imaging, whereas returning an IF that reveals misattributed paternity to a participant in a genomics study would be harmful. In the first instance, the participant is presented with the opportunity for referral and further management while in the second,

emotional and social harm will occur (Bemelmans *et al*., 2016). The return of IFs is strongly supported by beneficence and recommends an assessment of benefits and risks.

2.2.1.3 Nonmaleficence

The principle of nonmaleficence which originates from the Latin maxim *Primum non nocere* which means "above all do no harm" holds that there is an obligation not to inflict harm on others (Jahn, 2011). The concept of nonmaleficence describes the imperative to avoid harm (Beauchamp & Childress, 2013). Nonmaleficence is often described in terms of harm and injury. While this commonly refers to physical harm, it also encompasses psychological, emotional, and financial harm (Rodger, Blackshaw & Young, 2019). In addition to advising researchers against intentional harm towards research participants, the principle also encourages researchers to be on the lookout for risks that can result into harm. Ploug and Holm (2017) propose that policies for reporting of IFs must take into account the principles of nonmaleficence. They argue that withholding information about medically actionable IFs puts participants at risk and may be considered a violation of the principle of nonmaleficence and professional obligations. When medically significant and actionable IFs are discovered, they ought to be returned unless in instances where it negatively impacts on the well-being of the participant (Saelaert *et al*., 2018).

2.2.1.4 Justice

The principle of justice (also called distributive justice) seeks fair treatment as well as the equitable distribution of benefits and burdens of research (Beauchamp & Childress, 2013). It requires that the benefits and burdens of health research be equitably distributed among all in society. No individual or group should enjoy the benefits while another carries the burdens of the research (Al-Khatib & Kalichman, 2019). According to the *Belmont Report* (1979), an

injustice occurs when some benefit to which a person is entitled is denied without good reason. It is therefore a valid argument, in my opinion, to say that returning IFs to participants is just. Conversely, withholding IFs, especially those with potential benefit to participants, would be unjust. When making decisions about returning IFs, a researcher is essentially making determinations about the allocation of benefits and burdens of the research. Where there are no explicit guidelines on what steps to take when IFs are discovered, the researcher is expected to take the course of action that is fair and just to the participants. It seems unreasonable to argue that withholding IFs would be the fair and just choice. The decision not to return IFs should be the informed choice of the participant.

Those opposed to the return of IFs have argued that blanket policy requiring their return poses challenges to certain populations in that it would threaten the principle of justice. For example, in multi-centre international clinical trials, returning IFs may benefit those participants in developed countries with access to better health care while burdening those in low-resource developing countries who might not have access to interventions (Dal-Ré *et al*., 2014). Another commenter observed that there is a real possibility that research participants in studies with larger budgets are more likely to receive results than those in studies with less resources (Meltzer, 2006). However, these arguments do not state that returning IFs to research participants is unfair or unjust but simply highlight the challenges in ensuring fairness. The principle of distributive justice does not require that all research participants be able to access equal health care outside of the research but that they should be treated fairly and equally regarding the benefits and burdens of the study they take part in (Darnell *et al*., 2016; Dhai, 2017). Ensuring that they receive information regarding the findings of research, even that which is incidental, is well-supported by this principle.

2.2.2 Ethical Theory

Ethical theories enhance clarity, systematic order and precision in argument and inquiry. There are three approaches to ethical inquiry; metaethics, descriptive ethics and normative ethics (Rachels & Rachels, 2012). This research describes and uses the normative approach. Normative ethics involves addressing questions regarding which general moral norms are used to evaluate and guide conduct and the reasons for their use. In ethical theory, these norms are referred to as principles and are the starting points for developing and setting standards for appropriate conduct (Beauchamp & Childress, 2013). Normative inquiry involves evaluating moral standards and behaviour in order to attempt to understand what people should do or ought to do and what the ethical actions around a subject ought to be, and what should be the recommended actions. There are three distinct approaches to normative ethical analysis and decision-making; deontology, consequentialism (utilitarianism), and virtue ethics (Salloch *et al*., 2015).

2.2.2.1 Deontology

Deontology derives from the Greek words *deon* (duty or obligation) and *logos* (knowledge or the study of). It is a normative ethical theory that places emphasis on the relationship between duty and the morality of human actions (Waller, 2005). In this system of ethics, individuals have a duty and obligation to act in accordance with set rules, based upon which actions are deemed either morally right or wrong (Cholbi, 2015). In the conduct of health research, participants have ethical rights and researchers have corresponding ethical obligations. From the deontological perspective, these rights, obligations, and duties are thought of as rules (Conway & Gawronski, 2013). They emerge from the fundamental ethical principles discussed in section 2.2.1.

The most important ethical considerations regarding IFs are informed consent, the well-being of participants, and fairness, which are linked to the principles of autonomy, beneficence, and distributive justice (Wolf *et al.*, 2008; Ravitsky & Wilfond, 2006). These ethical considerations are also well-supported by Kantian deontology. Immanuel Kant (1724 – 1804) argued that the supreme principle of morality is a universal standard of rationality that he referred to as the Categorical Imperative (Johnson & Cureton, 2019). There are three formulations of the categorical imperative; however, the first and second are most relevant to the return of IFs. The first is that it must be possible to apply the action or rule to all similar situations all the time without exception. The second is that one must act in such a way that he/she treats other human beings always as an end and never as merely a means to an end (Rachels & Rachels, 2012). In applying the first formulation, it is evident that the return of IFs to research participants, when universalised, will promote fairness and justice. The second formulation supports the principle of autonomy. In the Kantian view, researchers have the duty to treat participants as ends in themselves and never as a means to an end (Misselbrook, 2013). In my view, informing participants of the possibility of discovering IFs and offering them a choice to receive them or not, upholds this moral principle as well as the principle of autonomy. Rachels and Rachels (2012) expound on the second imperative and explain that treating people as an end implies treating them well, with dignity and to promote their well-being. It has been noted that returning actionable IFs can be beneficial to participants as it gives them the opportunity to seek further management thus promoting their health and well-being. I argue that withholding IFs does not take active steps towards promoting the well-being of participants and is morally wrong.

2.2.2.2 Utilitarianism

Utilitarianism is a form of ethics in which the moral value of an action is evaluated on the basis of its overall utility or the value of its consequences. It is a form of consequentialism founded on the principle that happiness is good and suffering is bad, and therefore morally good actions are those that attempt to maximise happiness while minimising suffering relative to the number of people involved (Sinnott-Armstrong, 2011). The utilitarian view is that, when faced with an ethical dilemma, one ought to take the action that will result in the greatest amount of overall well-being or happiness, and the least amount of suffering (Habibi, 2001).

To apply this approach to the return of IFs, the overall balance of outcomes (consequences) is compared. The benefits and risks of returning IFs to participants have been widely discussed by bioethics scholars; however, the most prominent benefit is that it presents participants with the opportunity to learn of a condition or predisposition, allowing them to take early measures for management or prevention (Eckstein, Garrett & Berkman, 2014). On the other hand, some IFs have the potential to cause anxiety and psychological harm with no corresponding benefit (Ells & Thombs, 2014). Returning IFs as a way of maximising benefits for participants is well supported by the utilitarian approach. Despite the potential harms, several studies have shown that the majority of IFs discovered in health research are beneficial to participants (Ravitsky & Wilfond, 2006; Christenhusz, Devriendt & Dierickx, 2013; Berkman, Hull & Eckstein, 2014). In fact, some scholars have stated that knowing of the possibility of discovering IFs of medical value encourages participation and improves overall participant experiences in research (Eckstein, Garrett & Berkman, 2014).

There are two forms of utilitarianism; act and rule utilitarianism (Blum, 1970). Act utilitarianism embraces the ethical principles of autonomy, beneficence and justice. The respect for autonomy is one of the moral interests of rule utilitarianism. The expression of autonomy is likely to increase the feeling of happiness and satisfaction for the greatest number of individuals. The same view is taken on distributive justice. The ultimate goal of ethical health research is to benefit individuals and mankind. It is the goal of utilitarianism to maximise health and promote the well-being of individuals. The principle of beneficence is essentially a part of welfare consequentialism (Beauchamp, 1991). An act that promotes the well-being and best interests of the majority of people is morally right. The discovery of IFs has the potential to uncover information that is beneficial. This perspective provides sufficient ethical justification for the return of IFs (Dixon-Woods *et al*., 2011).

2.2.2.3 Virtue Ethics

Virtue ethics theory focuses on the character of the moral agent rather than the actions (Pellegrino, 1985). When the moral agent possesses certain character traits (virtues), he or she is considered ethical. Therefore, a morally right action is the one that a virtuous person would do in the same circumstances (Gardiner, 2003). It is presumed that a virtuous researcher will not only protect participants from harm and exploitation but also uphold his/her moral duties and obligations regarding the return of IFs. I will not attempt to create a definitive list of the virtues expected of a researcher, but I will mention a few that are common in literature. According to Beecher (1966), the virtues expected of a researcher are compassion, responsibility, intelligence, conscientiousness and integrity. Some of these are incorporated in various professional codes of ethics. There is also a link between virtues and the principles of ethics. Cook *et al*., (2015) argue that respect for autonomy is a moral virtue. Respecting the preferences of participants

regarding the return of IFs is the morally right action. The principle of beneficence is derived from the virtue of benevolence. Returning medically actionable IFs can be viewed as an act of benevolence towards the participants. Rawls (1971) stated that justice is a virtue in both social and professional situations. Respect for the rights of participants in health research is an act of justice. The return of IFs to participants is supported by the principle of distributive justice.

Although it does not provide a definitive course of action regarding the return of IFs, the virtue ethics approach should be integral to the internal morality of researchers when faced with the dilemma of IFs (Gardiner, 2003). Additionally, I believe that the combination of virtues and principles would lead to improved decision-making.

2.3 Ethical Guidelines for Health Research

Several guidelines were developed in response to unethical human experiments such as those carried out in Nazi Germany, the Tuskegee experiment and the Willowbrook Hepatitis study (Das & Sil, 2017). This section introduces SA and international guidelines on ethics in health research and discusses their explicit or implicit stand on the return of IFs.

2.3.1 South African Guidelines

2.3.1.1 Department of Health Ethics Guidelines, 2015

The National Health Research Ethics Council (NHREC) was established in terms of section 72(1) of the National Health Act (NHA) (Act No. 61 of 2003) and section 72(2) outlines its functions which, among many, includes to set norms and standards for conducting research on humans. In the exercise of this mandate, the NHREC issued a second version of the guidelines

for ethical conduct of health research; Ethics in Health Research - Principles, Processes and Structures (NHREC guidelines) in 2015. Chapter 2 of the guidelines describes the broad principles that underpin research in humans which informs the norms and standards set out in the guidelines. These principles; beneficence, nonmaleficence, distributive justice and respect for autonomy, have been discussed in this chapter and I have demonstrated how they support the return of IFs. In section 3.1.9, the guidelines describe in detail the recommended process of obtaining informed consent and list several elements and expectations regarding informed disclosure. One of these is that the information provided during the informed consent process should explain the potential risks for participants during and after the research. My argument is that IFs present both potential risks and benefits to individual research participants and in some cases to families and entire communities. For this reason, the possibility of their discovery should be discussed with participant.

Section 3.3 of the guidelines, which addresses the collection of data and biological materials for research purposes comes closest to the subject of IFs. Section 3.3.8 states that:

> Furthermore, genetic information is not specific to one individual but reveals much about that person's relatives and others with a shared ancestry. When assessing the ethics of proposed genetic research, HRECs must pay particular attention to multiple considerations, including the proposed social value of the research; consent, privacy, confidentiality as well as the potential effect of the research on families, communities and other groups. The proposal must include a plan that outlines how information revealed by the genetic research will be managed. This plan must be explained to potential participants. Plans to share findings with participants must include opportunities for participants to choose whether they wish to receive the information personally, and whether the information may be shared with biological relatives. Genetic counselling must be available if findings will be disclosed to participants.

This section recognises the importance of the findings that may arise from genetic research, many of which may be incidental to the research and recommends a plan for sharing of this information, which plans must be reviewed and approved by HRECs. The shortcoming of this guideline is that it recognises only genetic research, yet findings of this nature have been noted from various other types of research.

However, section 3.1.5 indicates that HRECs, when evaluating research proposals, should ascertain that the study procedures explain whether specific results such as IFs will be disclosed to participants. The guidelines also provide a definition of IFs; "unanticipated discoveries made in the course of research that are outside the scope of the research." (Appendix 1, Glossary). While there is no further guidance on how IFs should be managed, the guidelines recognise them as important clinical findings in research that need to be returned to participants with consideration provided to their relatives and community.

2.3.1.2 HPCSA Guidelines

The HPCSA, established under the Health Professions Act (HPA) (Act No. 56 of 1974), is a statutory body that regulates health care professions in the country. It is mandated with setting standards for ethical practice for health care professions incorporated by the HPA. To this end, the HPCSA issued several guidelines which are an integral part of the standards for professional conduct against which a complaint can be lodged and evaluated (Hoffmann & Nortjé, 2016). The three guidelines relevant to health research are; General Ethical Guidelines (2016), Ethical Guidelines for Health Researchers (2016), and Ethical Guidelines for Biotechnology Research in SA (2008); also referred to as booklets 1, 13 and 14 of the HPCSA guidelines, respectively.

These guidelines do not address IFs; however, they highlight the principles of ethics as their foundation. The General Ethical Guidelines outline the core ethical values and standards of health practitioners under section 2.3 to include; respect for persons, best-interest or well-being, beneficence, human rights, autonomy, integrity, truthfulness, confidentiality, compassion, tolerance, justice, professional competence, self-improvement and community. Section 5.1.1 the guidelines provides that health care practitioners should always have concern for the best interests or well-being of their patients as their primary professional duty in line with the principle of beneficence. Section 5.3 provides for the value of respect for persons under the ethical value of autonomy. It requires that persons be aided to make autonomous decisions based on available information. Section 5.3.3 urges health care practitioners to refrain from withholding any information, investigation, treatment or procedure that would be beneficial to patients. It can be inferred that IFs, especially those with potential benefits to participants, would be covered under this guideline. Furthermore, section 5.3.5 requires health care practitioners to allow persons access medical records. Again, it can be argued that a medical finding, including an IF, is part of a medical record that should be availed to participants.

While booklet 1 provides general guidelines to health care practitioners, booklets 13 and 14 are more specific to health research. In this discussion, I will focus on booklet 13 because booklet 14 only provides additional guidelines for biotechnology research. Booklet 13 invokes the principle of beneficence in health research under section 4.1.1 which provides that; “the benefit of health research must outweigh the risks to the research participant. Under section 6.3.7, it provides that health researchers should always refrain from purposely withholding from research participants any information, investigation or procedure that health practitioners know is in the best interests of the participant. It further provides, under section 6.3.11, that health

researchers should always allow competent research participants unimpeded access throughout the research period, to information concerning the research. It can be argued that IFs fall under the definition of this information. In addition, section 6.1.1 of booklet 13 requires researchers to always place the life, well-being, health, privacy and dignity of their research participants ahead of any other interests of the research. Under these provisions, where a researcher feels that the health of the participant can be improved, they have a duty to disclose that information to the participant and encourage them to seek the necessary health care. Also, participants who contribute samples and materials to the research expect something in return for their participation, at the very least information about their health condition. This is referred to as the principle of reciprocity. They expect the researcher to act in good faith in regard to their health data and information. Section 6.6.3 of these guidelines requires researchers in all instances, at the conclusions of their study to ensure that the research participants have access to the best proven prophylactic, diagnostic and therapeutic methods identified by the study. This requirement is wide and strict enough to cover the return of IFs to participants.

2.3.1.3 SAMRC Guidelines, 2018

The South African Medical Research Council (SAMRC) is s statutory body under the national Department of Health that was established in terms of the SAMRC Act No. 58 of 1991. SAMRC's aim is to improve the nation's health status and quality of life through relevant and excellent health research. SAMRC issued Guidelines on the Responsible Conduct of Health Research, which were last updated in 2018. These guidelines were enacted pursuant to rights contained in the Bill of rights in the Constitution such as the right to be respected, the right to inherent dignity, the right to bodily and psychological integrity and others. The guidelines also provide for the need for medical researchers to respect the ethical value of respect for persons.

Section 10.4 of the guidelines provides that the informed consent of the research participant must clearly demonstrate how the data from genetic/genomic research will be managed and the participants must have the right to receive the results directly or be shared with their families. In addition, section 10.6 mandates that education and genetic counselling before and after testing must be offered if results will be disclosed to the donors. Section 11.6 states that; "data collection, capture, storage, management, reporting and access must, in all instances, be in compliance with all applicable legislation, including but not limited to the Protection of Personal Information Act (No. 4 of 2013), the Intellectual Property Rights from Publicly Financed Research and Development Act (No. 51 of 2008), the Promotion of Access to Information Act (No. 2 of 2000), and the National Health Act (No. 61 of 2003) and, where applicable, in compliance with Good Clinical Practice and Good Laboratory Practice requirements. The provisions of the above laws with respect to the return of IFs are discussed in chapter 3.

2.3.2 International Instruments

For decades, health research has included large scale studies involving hundreds or thousands of participants often in multiple centres in different countries. These kinds of studies have required a harmonisation of ethical standards to ensure both scientific merit and distributive justice. To achieve this goal, several instruments have been developed by multinational bodies to guide ethical conduct in international health research. These instruments have provided the basis for the formulation of many country-specific guidelines, including those of SA. The guidelines, although considered "soft law" which is not legally binding, offer a critical framework for the harmonisation of research and ensuring that universal tenets of human rights, justice and fairness are upheld. In addition, where local laws are silent on an issue, international

instruments may be referred to. This section introduces these guidelines and discusses their explicit or implicit stands on the return of IFs.

2.3.2.1 WMA Declarations

The WMA is an independent confederation of professional medical associations from 113 countries including SA. One of its key objectives is to provide its members with a forum to communicate and co-operate to achieve consensus on standards for medical ethics. To this end, WMA proclaimed several declarations, and I will discuss the three most pertinent to the return of IFs; Ethical Principles for Medical Research Involving Human Subjects *(Declaration of Helsinki*) (WMA, 2013), Rights of the Patient (*Declaration of Lisbon*) (WMA, 2015), and Ethical Considerations Regarding Health Databases and Biobanks (*Declaration of Taipei)* (WMA, 2016).

The *Declaration of Helsinki* provides guidance to physicians engaged in medical research to ensure that there is protection to the life, health, dignity, integrity, right to self-determination, privacy and confidentiality of personal information of research participants. Although the Declaration is not explicit on IFs, under principle 36, it states that researchers, authors, editors, sponsors and publishers all have an ethical obligation regarding publication and dissemination of research results. A duty is imposed on researchers to make publicly available the results of their research and to account for the completeness and accuracy of their reports (WMA, 2013). I submit that IFs can be included in this category.

The *Declaration of Taipei* was developed to remedy the shortcomings of the *Declaration of Helsinki* by taking into account the rapidly evolving technologies in medical research and the

large quantities of new information that these technologies generate. The Declaration is explicit on IFs. Principle 12 provides that researchers must adequately inform participants of the possibility of discovering IFs and how they will be managed. Principle 14 provides that individuals have the right to request for and be provided with information about their data and its use as well as to request corrections of mistakes or omissions. The principle further guides that operators of health databases should put in place adequate measures to inform the concerned individuals about their activities. Furthermore, principle 20 states that any relevant information on health databases and biobanks must be made available to the public. Lastly, principle 21 recommends that all operators of health databases and biobanks should have in place policies for their governance, which must include the procedure for re-contacting participants to discuss significant findings (WMA, 2016).

The *Declaration of Lisbon,* which highlights the rights of patients, provides guidance that may be used in the management of IFs. Principle 7(a) of the Declaration states that "the patient has the right to receive information about himself/herself recorded in any of his/her medical records, and to be fully informed about his/her health status including the medical facts about his/her condition". Principle 7(b) also states that "exceptionally, information may be withheld from the patient when there is good reason to believe that this information would create a serious hazard to his/her life or health" (WMA, 2015). While specific to clinical care, the principles from this Declaration can be inferred to apply to health research as well. This is because health research often draws from and contributes to patients' health records. Additionally, health research often takes place in clinical care settings (Litton & Miller, 2005).

2.3.2.2 CIOMS International Ethical Guidelines for Health-related Research Involving Humans, 2016

The WHO and UNESCO jointly established the Council for International Organisations of Medical Sciences (CIOMS) in 1949 to advance public health through guidance on health research including ethics. The South African Medical Research Council (SAMRC) is a member organisation of CIOMS.

In 1982, CIOMS developed the International Ethical Guidelines for Biomedical Research Involving Human Subjects to provide guidance on several ethical issues in health research. These have been updated several times with the latest update being in 2016. The guidelines state that "research findings, whether unsolicited or not, can be returned to the donor". Guideline 11 proposes that institutions carrying out research on archived or leftover biological material must have a governance structure in place detailing the procedure for determining whether unsolicited findings should be disclosed, and if so, how they should be managed. The guideline further suggests that the informed consent process in health research informs the participants of the possibility of unsolicited findings and provides details of how they will be dealt with and that the HREC must ensure that the consent process meets these specifications. Guideline 12 proposes that disclosure of IFs should happen if they meet the following standards; analytical validity, clinical significance and actionability to qualify for being returned. This implies that life-saving information and data of immediate clinical importance must be offered for disclosure, whereas information of uncertain scientific validity or clinical significance would not qualify for communication to the participant. The explicit guidance on returning IFs in these guidelines implies that it is ethically justified.

2.3.2.3 UNESCO Declarations

In 1997, UNESCO released the Universal Declaration on the Human Genome and Human Rights to provide ethical guidance on genomic research, especially the sequencing of the human genome (UNESCO, 1997). Article 5(c) of these guidelines states that "the right of each individual to decide whether or not to be informed of the results of genetic examination and the resulting consequences should be respected". It is inferred that this right must be discussed during the informed consent process, and this includes information on IFs.

Additionally, UNESCO also developed the International Declaration on Human Genetic Data in 2003 on the use and management of human genetic data (UNESCO, 2003). Article 10 states that research participants have "the right to decide whether or not to be informed about research results". The article further requires that the right to be informed or not should be extended to identified relatives who may be affected by these results. Article 13, which deals with access, states that "no one should be denied access to his or her own genetic data or proteomic data unless such data are irretrievably unlinked to that person as the identifiable source or unless domestic law limits such access in the interest of public health, public order or national security". Article 19 advises that if required, special assistance such as medical care should be extended to the individuals that take part in the research.

2.3.2.4 OECD Guidelines on Human Biobanks and Genetic Research Databases, 2009

The OECD is an inter-governmental forum of 37 member countries that seeks to stimulate economic progress and trade by providing a platform for sharing policy experiences across various sectors, including health research. Although not a member, SA interacts with various subsidiary bodies of OECD notably the Committee for Scientific and Technological Policy

(CSTP) on which it has observer member status. The CSTP drafted the Guidelines on Human Biobanks and Genetic Databases, issued by OECD in 2009. The guidelines seek to offer guidance for the establishment, governance, management, operation, access and discontinuation of human biobanks and genetic research databases (HBGRD). They provide an elaborate structure for the effective management of HBGRD and recommend mechanisms for the return of research results and access to these databases.

Recommendation 4.D of the guidelines provides that the operators of HBGRD should have a clearly articulated policy on whether participants may be recontacted during the course of the HBGRD's existence, the situations for which recontact will be permitted and the conditions that will govern recontact. Recommendation 4.9 provides that the operators of the HBGRD should have clearly articulated policy on feedback and the nature of the feedback, if any, that will be provided to participants. Recommendation 7.8 requires operators to formulate policies and procedures setting out the manner in which an individual participant can request information and data about him/ herself contained in the HBGRD, how those requests will be handled, and which information and data, if any, can be made available. Under recommendation 9.1, the operators are mandated to have a clearly articulated policy regarding benefit sharing. The said policy should address whether the tests or products arising from research using its resources might be shared with the community and how such sharing will be done.

Although the guidelines are not specific about IFs, their broad definition of research results can be inferred to include IFs and its recommendations provide sufficient guidance on their management.

2.4 Conclusion

From the examination and analysis of the ethical frameworks above, it is clear that there is sufficient ethical justification for the return of IFs to research participants in the SA context. The analysis shows that there is broad consensus on three ethical considerations; firstly, that participants should be informed of the possibility of discovering IFs; secondly, that their informed choices regarding returning the IFs should be sought as part of the consent process, and; thirdly, that when an IF is valid, clinically important, and actionable, it should be returned. These points are well-supported by the principles of respect for autonomy and beneficence as well as the ethical theories of deontology and utilitarianism. While several international guidelines are explicit on IFs, national guidelines do not adequately address them. This ethical gap is problematic as it potentially infringes on the principle of distributive justice, particularly when South Africans participate in international research. However, notwithstanding this ethical gap, the return of IFs does not contravene the provisions on any national ethics guidelines. In fact, I submit that it would be well-supported.

CHAPTER THREE

LEGAL CONSIDERATIONS

3.1 Introduction

In this chapter, I will examine the SA legal framework to establish whether the return of IFs to participants is legally justified. This chapter is aligned to objective 2 of the research.

3.2 The Constitution, 1996

The Constitution of the Republic of South Africa of 1996 (hereinafter called "the Constitution") is the supreme law of the country. Chapter 2 of the Constitution contains the Bill of Rights, which establishes the fundamental rights of all persons in the country. According to section 12(2) of the Bill of Rights:

> Everyone has the right to bodily and psychological integrity, which includes the right:
> (a) to make decisions concerning reproduction;
> (b) to security in and control over their body; and
> (c) not to be subjected to medical or scientific experiments without their informed consent.

In the health research setting, this section of the Constitution directly addresses informed consent and indirectly addresses reproductive health. I will focus my argument in support of returning IFs on informed consent. As enshrined in the Bill of Rights, informed consent is a fundamental right and as such, a requirement for the legal (and ethical) conduct of research involving human participants. The right not to be subjected to medical or scientific experiments without informed consent is a non-derogable right, in other words this right may not be infringed

upon or suspended. It is the process through which researchers respect individual autonomy, a fundamental ethical principle, as discussed in Chapter 2 of this report. Informed consent means that research participants must be entirely informed about the study, including the potential risks and benefits of their participation. The process must be a dialogue of the study's purpose, duration, experimental procedures, alternatives, risks, and benefits. It is, therefore, important to ensure that all known and anticipated information about the research is shared with the potential participant prior to their participation (*Belmont Report*, 1979). Some commentators opposed to the discussion of IFs as part of the informed consent process have argued that the definition of informed consent does not cover IFs because of they are unexpected findings. Traditionally, IFs have been defined in terms of their unexpected or unanticipated nature. This definition has empirical and conceptual shortcomings in several situations. Some types of research are highly prone to generating IFs therefore it would be misleading to consider them unanticipated, even if their precise nature may not be easy to anticipate (King, 2018). For example, the discovery of misattributed paternity in a study involving genomic sequencing could not be termed "unanticipated". Another example is the detection of lesions in a study involving a whole body MRI. From the perspective of the researcher, the occurrence of such IFs may be, and should be, anticipated (Illes *et al*., 2006). For this reason, I argue strongly that these IFs and the potential for their discovery should form part of the informed consent discussion. The participant should be given an opportunity, during this process, to choose between receiving or not receiving these findings. This argument and position, in my view, are consistent with the provisions of the Constitution regarding informed consent.

The debate on the return of IFs in health research concerns another right – the internationally recognised "right to know". This right is explicitly addressed in the Constitution under section 32(1) of the Bill of Rights which states that:

> Everyone has the right of access to –
> (a) any information held by the state; and
> (b) any information held by another person and that is required for the exercise or protection of any rights.

This provision imposes a duty on the state and any private person/ entity in possession of any information critical to the enjoyment of any rights by any person, to grant such person access to that information. Medically important IFs can be considered to fall in this category of information. Returning such IFs enforces the provisions of section 27 of the Constitution which provides for the right to health and to seek healthcare services. In this case, an actionable IF would help the participant seek medical attention whereas withholding the information would deny the participant vital health information and therefore not seek the necessary health care in time or at all.

The provisions of the Constitution offer strong support for the return of IFs. In addition, there are no explicit provisions that would be considered to prohibit the disclosure of IFs.

3.3 National Health Act 61 of 2003

The National Health Act (NHA) (Act No. 61 of 2003) sets out the main legal framework under which the right to health care and health services, provided for in the Constitution, is to be enjoyed. It outlines the rights and duties of both health care users and providers. Although the NHA does not explicitly address IFs, the basis of my argument that its provisions offer a

plausible legal justification for the return of IFs in health research is based on broad interpretations of its provisions, notably the subject of informed consent. Additionally, no provision of the NHA can be interpreted to prohibit the return of IFs.

Section 7 of the NHA describes consent of the health service user and indicates that a health service may not be provided to a user without the user's informed consent and section 8(1) provides for the right of a user to participate in any decision affecting his or her health and treatment. Section 71 of the NHA provides that research on a living person may only be conducted in the prescribed manner and with the written informed consent of the person after he or she has been informed of the objects of the research or experimentation and any possible positive or negative consequences on his or her health. These positive and negative consequences are also commonly referred to as research risks and benefits (Wolf *et al*., 2008). Although there is much debate on their precise categorisation, IFs can be considered potential risks or benefits of research. Whether a specific IF will be considered a risk or benefit is a separate question (Parker, 2008). What is not in question is that they are outcomes of research or experimentation and that they may have consequences on the health of individual participants and, in some cases, families or entire communities. Moreover, in certain types of research, these findings can be anticipated (Illes *et al*., 2006). The possibility of generating IFs should be disclosed during informed consent. Research protocols should provide a rationale for sharing or not sharing IFs, and regulatory review of such plans should form part of the approval process. I submit that this position is consistent with the provisions of the NHA specific to informed consent in health research.

3.4 Protection of Personal Information Act 4 of 2013

Section 14 of the Constitution guarantees every person's right to privacy. The Protection of Personal Information Act, 4 of 2013 (POPIA), which came into effect on 1st July 2020, was enacted pursuant to this constitutional provision. The Act provides a general framework to regulate the protection of personal information in both the public and private sectors. Under section 11, it provides that the personal data of a data subject may not be processed without the person's consent. Under the Act, several duties are imposed on the party responsible for collecting data and several rights are prescribed for the data subject. The responsible party must ensure that the process of data collection and processing does not infringe the privacy of the data subject. Several provisions provide for the right of data subjects to access information collected about them. Section 5(b) provides for the right of a data subject to establish whether a responsible party holds their personal information and to request access to this information as provided under section 23. Section 18(1)(h)(iii) provides for the right of the data subject to be informed of the existence of the right of access to and the right to rectify the information collected. Under the terms of sections 23 (a) and (b), a data subject that has provided adequate identification is entitled to access the information and to know all the parties that have had access to the information in a reasonable time, at a prescribed charge, in a reasonable manner and format that is generally understandable.

Section 26 of the POPIA prohibits the processing of personal information relating to the health and sex or biometric information of a data subject. This prohibition is however waived by section 32 (1)(a) in as far as the processing of the health information is necessary for the proper treatment and care of the data subject, or for the administration of the institution or professional practice concerned. Read widely, the interpretation of section 32(1)(a) can include the

processing of IFs, to ensure proper treatment and care of the data subject, thereby prompting disclosure to participants. Section 37(1)(b) empowers the regulator to grant exemption to a responsible party to process personal information, even if such processing is in breach of a condition for the processing of such information, or any measures that give effect to such condition, if the regulator is satisfied that, in the circumstances of the case, *inter alia*, the processing involves a clear benefit to the data subject or a third party that outweighs, to a substantial degree, any interference with the privacy of the data subject or third party that could result from such processing. Again, such a provision opens the door for wide interpretation in the medical necessity argument sense. Where the benefit that the research participant is likely to gain from disclosure and hence receiving further medical care greatly outweighs the dangers that are likely to arise from such disclosure, disclosure in such a case is legally justified (Pike, Rothenberg & Berkman, 2014). POPIA seems to recognize the fact that medical necessity is a strong enough reason to derogate from the right to privacy provided for thereunder and any person who breaches them in the quest to save the life of a research participant is granted sufficient protection.

It should be noted that POPIA serves to protect the data records of subjects from being accessed by unauthorised third parties. It is aimed at ensuring confidentiality and integrity of records and provides guidance on disclosure. It does not rather seek to block users from accessing their own information. The POPIA cannot therefore be used as justification to deny research participants the right to enjoy their fundamental rights enshrined in the Constitution and several other laws. The right to receive IFs, in my opinion, is supported under the interpretation of this Act.

3.5 Promotion of Access to Information Act 2 of 2000

The Promotion of Access to Information Act (PAIA) (Act 2 of 2000) gives effect to the constitutional right of access to any information held by the state or any information that is held by another person and that is required for the exercise or protection of any rights pursuant to section 32 of the Constitution which provides that:

> (1) Everyone has the right of access to:
> (a) any information held by the state; and
> (b) any information that is held by another person that is required for the exercise or protection of any rights.
> (2) National legislation must be enacted to give effect to this right and may provide for reasonable measures to alleviate the administrative and financial burden on the state.

Under sections 11 and 50 of the Act, a requester must be given access to any record of a public or private body if that record is required for the exercise or protection of any rights provided the access is not prohibited by law. The request contemplated thereunder includes a request for access to a record containing personal information about the requester or the person on whose behalf the request is made. It is not unreasonable to consider IFs personal information under this law.

However, the PAIA also provides for circumstances under which access to personal information may be denied. Where it has not been proved that access is not likely to endanger the mental and physical health of the relevant person, access may be denied. Section 66(a) empowers the head of a private body to refuse access to a record of the body if its disclosure could reasonably be expected to endanger the life or physical safety of an individual. The interpretation of this section should not extend to IFs in health research, as these should have been discussed as part of the informed consent process and a pre-assessment of dangers should have been made. In

addition, section 30 of PAIA which is specific to the health care setting provides for the pre-assessment of potential dangers of disclosure. This section of the Act recognises the potential harm the disclosure of health-related personal information may have on an individual and makes provisions for minors and vulnerable persons. It further provides for the right and need for pre- and post-disclosure counselling to assist the individual deal with the implications of the disclosed information.

Section 69(1) provides that; where the information sought is in respect of research information carried out on behalf of a third party, refusal of access is permitted where such disclosure is likely to expose the third party or the subject matter of the research. The Act criminalises unreasonable denial of access to information. Under section 90, a person who with intent to deny a right to access information in terms of PAIA, *inter alia,* conceals a record, falsifies a record or makes a false record, commits an offence and is liable on conviction to a fine or to imprisonment for a period not exceeding two years.

This Act seems to clearly support the position and recommendations regarding the procedure to be followed in the process of managing IFs in health research. It provides a strong basis and provides guidelines on how IFs can be returned and disclosed to research participants; they should form part of the informed consent process where individuals are provided a choice to either receive these findings or opt out.

3.6 Legal Duty to Disclose

I submit that from the analysis of relevant legislation, there indeed exists a compelling legal duty to disclose IFs to participants. This duty arises first, from the Constitution; it is further

confirmed by the statutes and ethical guideline documents (outlined in Chapter 2). In addition, should IFs not be disclosed and subsequently result in harm to the participant, this inaction could very possibly result in a negligence claim. Actions in negligence are prevalent in medical practice. In *Heaven V Pender (1883) 11 QBD,* an English case which foreshadowed the birth of the modern law of negligence, Brett MR indicated that "*Wherever one person is…. placed with regard to another that everyone of ordinary sense…..would at once recognize that if he did not use ordinary care and skill….he would cause danger or injury to the person of the other, a duty arises to use ordinary care and skill to avoid such danger.*" To establish a duty in negligence, it is not necessary for the complainant to establish that the defendant indeed had the requisite skill to carry out the duty imposed, rather it is sufficient to establish that there existed a relationship of trust, and that the defendant failed or neglected to perform the duty expected of them in that relationship, and that in their failure to act, the complainant suffered damage. The "But for" test involved in actions arising in negligence requires the complainant to show that had the defendant acted, the complainant would not have suffered the damage that he or she indeed suffered. A typical example of this would be a case where during a behavioural study involving medical imaging discovered a lesion in the brain that could potentially become cancerous, and the researcher elects not to disclose this information to the participant. If later the participant develops a cancerous brain tumour, a negligence claim can successfully arise against the researcher and institution who did not return such vital health information to the participant. The only safe route to avoid such a scenario is either to return such information or to ensure that the written consent given by the participant absolves the researcher of any liability of that nature likely to arise. The latter option, however, is not a guaranteed insulation against a claim since the duties of trust discussed above are statutorily and ethically imposed. It is reasonable to argue that there may be exceptional instances in which the researcher may be

protected. For example, in a situation where secondary research occurs many years after the initial study was completed and the participant or family members are uncontactable for disclosure. In such a scenario, it is important for the researcher to show documented due diligence in attempting to contact the participant or his/her family. Additionally, a timeframe can be estimated, beyond which disclosure is not practical.

Another pivotal case that introduced the doctrine of informed consent into SA law is *Castell V De Greef [1994] 4 AII SA 63(C)* which deals with the doctors' duty to disclose material risks. In this case, the SA Supreme Court held that a medical practitioner owes an unimpeachable contractual duty to the patient to inform him or her of a material risk likely to occur. This case was decided in the context of surgical practice but its compelling value regarding disclosure *vis-à-vis* consent is broad. In this case, the Supreme Court reasoned that this obligation is not discharged even where the patient is acting unreasonably or where he/she has withheld consent to be informed. The medical practitioner is obliged to inform the patient of a material risk regardless. The court further stated that consent can only be allowed as a defence where the patient had prior knowledge of the nature and extent of the risk, and fully appreciated the nature and extent of the risk. The position of SA law from the context of *Castell v De Greef* is therefore that the obligation to disclose to a 'reasonable patient' a material risk is absolute and cannot be discharged on the basis of consent or lack thereof. A reasonable patient was defined by the court to be one who can attach importance to a condition which is brought to his or her attention. Although this case is based on a clinical practice setting, it has applicability in health research insofar as the guiding principles of consent are concerned.

Another key case regarding the disclosure of potential known risks in health research is *Grimes V Kennedy Krieger Institute [2001] 366 Md. 29, 782 A.2d 807*. The case arose from a lead abatement study conducted by the Kennedy Krieger Institute of the Johns Hopkins University, in which participants were encouraged to live in houses where exposure to lead was well-known to the researchers. The issue for the court's determination was whether a researcher does not have a duty to warn a participant and/or the guardian, of the potential dangers associated with the research, of which the researcher is aware. The court ruled that researcher-participant relationship is one of a contractual nature for which the researcher has a duty to inform the participant of any foreseeable harms. The court further determined that breaches of such duty may result in viable legal claims.

Case law therefore suggests that there exists a duty to disclose material risks to a reasonable patient/ participant. Failing to do so not only erodes the trust relationship between researcher and participant, but may also result in a negligence claim, should the participant suffer harm as a result of such non-disclosure.

3.7 Fiduciary Duty

A fiduciary can be defined as "a person entrusted with power or property to be used for the benefit of another and legally held to the highest standard of conduct" (Morreim, 2005). This relationship is made up of at least two parties, a 'fiduciary' and a 'principal'. The fiduciary is the party the duty is imposed on (the investigator in the case of health research) while the principal is the party that is owed the duty (the research participant) (Bernabe *et al*., 2014). Fiduciary duties in medicine include the duty of loyalty, duty of care, duty to inform, the duty of confidentiality and the duty to act within the scope of authority (Lázaro-Muñoz, 2014). The

duty of loyalty requires that, always, the principal's interests supersede those of the fiduciary. The duty of confidentiality is a crucial fiduciary duty that requires that decisions about disclosures of information related to a research participant must primarily consider the interests of the participant.

The concept of fiduciary duty raises the question of what obligations a researcher owes study participants. In the research context, the principle of beneficence is usually interpreted differently from the way it is in clinical settings (Daack-Hirsh *et al*., 2013). Although in the clinical context it is expected that the healthcare provider has a fiduciary duty to pursue the best interests of the patient, in the research setting a researcher must also balance the aims of the study with maximising benefits and minimising risks to the participants (Price, 2013). Several organisations, courts and legislatures have attempted to describe the fiduciary principles applicable to researcher-participant relationships in order to develop frameworks that can guide the rational handling of IFs in health research. Sections 12 and 32 of the Constitution, 1996 provide that everyone has the right to security in and control over their body and the right of access to any information that is held by another person and that is required for the exercise or protection of any rights. With regard to the duty to inform, section 6 of the National Health Act 61 of 2003 requires that "every health care provider must inform a user of the user's health status except in circumstances where there is substantial evidence that the disclosure of the user's health status would be contrary to the best interests of the user; the range of diagnostic procedures and treatment options generally available to the user; the benefits, risks, and consequences generally associated with each option; and the user's right to refuse health services…" (NHA, 2003).

Section 5 of the HPCSA guidelines for good practice in the health care professions as discussed in Chapter 2, further states that "healthcare practitioners should always regard concern for the best interests or well-being of their patients as their primary professional duty, honour the trust of their patients, be mindful that they are in a position of power over their patients and avoid abusing their position" (HPCSA, 2016). All the laws cited above place a fiduciary duty on the researcher to disclose vital health information discovered in the process of conducting research. Even though not explicitly stated, the interpretation would be that such information would encompass IFs. Additionally, a recent 2018 report by the National Academies of Sciences, Engineering and Medicine on the Return of Individual-Specific Research Results Generated in Research Laboratories, specifies that researchers and their institutions should consider how and whether to return IFs through effective communication strategies within the informed decision-making process. The report also emphasizes the importance of engaging with communities and advocacy organisations to ensure participant values are incorporated within the process and for sponsors to adequately plan for the return of IFs in funding applications (NASEM, 2018).

3.8 Conclusion

It is evident from the above examination of the SA legal framework that although the laws and regulations do not explicitly address IFs in text, when carefully studied and given wider interpretation, they provide sufficient cover for returning IFs to research participants. The Constitution provides for certain rights, among them, the non-derogable right to life and the right to access health care. It then provides for the right to access information necessary for the enjoyment of any right provided thereunder. This supports the position that participants have a right to receive IFs. The statutory duty to return research findings or otherwise the right to access health records is therefore founded in these Constitutional provisions and pursuant subsidiary

legislation such as the NHA, POPIA and PAIA. This legal interpretation is further reinforced by national and international ethical instruments.

CHAPTER FOUR

CRITICAL ANALYSIS AND ARGUMENTS

4.1 Introduction

The thesis statement of this research makes the claim that; returning IFs to research participants is ethically and legally right and justifiable in the SA context. In this chapter, I critically analyse the arguments for and against returning IFs, and I argue in support of the research statement. This chapter is aligned to objective 3.

4.2 A Case for the Return of IFs

In this research, it is argued that returning IFs to research participants is ethically and legally right and justifiable based on the following premises:

1. It promotes the fundamental principles of respect for persons and beneficence;
2. It aligns with the moral and ethical principles of Kantian ethics;
3. In line with the utilitarian approach to ethical decision-making, it maximises potential benefits while minimising potential risks for participants;
4. It is consistent with the provisions of the Constitution as well as other laws, regulations and guidelines.

4.2.1 Respect for Persons

A complete human rights-based approach to bioethics includes the principle of respect for persons, which is applicable to all human beings. Respect for persons, which underpins the requirement for informed consent in research, supports the position that returning IFs to

participants is ethically right. Firstly, it requires that researchers empower participants to make free and informed decisions about their participation in research. This invariably includes providing participants with detailed information regarding the research, including purposes, risks and benefits associated with participating in the study (NASEM, 2018). I argue that the possibility of discovering IFs should be part of the information to be discussed and that researchers should seek the participants' preferences about their return. Secondly, the principle recommends that when researchers discover information that participants would find useful in making decisions about their health, such information ought to be disclosed. In fact, in recognising that individuals should be free to make autonomous decisions about their health, respect for persons may even support returning IFs that are potentially harmful (Pike, Rothenberg & Berkman, 2014).

A probable counterargument is that respect for persons also means that individuals have the "right not to know", which is an internationally recognised right. The argument is that while individuals are entitled to know any information collected about their health, their wishes not to be informed should be respected. I submit that this argument does not hold with regards to IFs for two reasons. Firstly, the right not to be informed of IFs would be expressed as a preference upon being informed of the possibility of their discovery. It is unreasonable to assume that all participants would prefer not to know. Secondly, I argue that the right not to know needs to be balanced against other rights and ethical considerations such as beneficence, nonmaleficence, distributive justice and professional duties. The idea that there is a general right not to know health information that exceeds other rights and interests should be rejected.

4.2.2 Moral Duty of Beneficence

The fundamental principle of beneficence places a *prima facie* moral duty and obligation on researchers to act in ways that maximise possible benefits for participants (*Belmont Report*, 1979). The requirement for beneficence to be demonstrably present in any health research project is a universal one and is founded on this principle. Returning IFs of medical importance and that are actionable presents participants with the opportunity to take decisions and actions to prevent or minimise future medical harm (Zawati & Knoppers, 2012; Wonkam & de Vries, 2020). I argue that there is ethical value, based on the principle of beneficence, for IFs discovered to be assessed for clinical validity, clinical significance, as well as actionability to determine their possible return. This position recognises that while returning IFs presents potential benefits for researchers, it may be harmful in some instances. However, this potential for some IFs to cause harm does not provide ethical justification for a blanket policy not to return them.

There are three counterarguments to this position provided in literature. The first argument is that returning certain IFs may cause harms to participants and, in some cases, their family members. Commonly cited examples include IFs with no known medical value, those that are not actionable, and those that reveal misattributed paternity. (Halverson & Ross, 2012). Ethical concerns have also been raised about returning IFs to participants in special populations such as minors, relatives of deceased participants, pregnant women, and those with limited capacity (Meltzer, 2006; Dixon-Woods, 2011; Ewuoso, 2016). This argument is flawed because it focuses only on the potential harms while ignoring the potential benefits of returning IFs which are well documented in literature. Several authors have stated that in addition to many IFs being medically important and actionable, the overall benefits of returning them far outweigh the risks,

that withholding them from participants would be ethically indefensible (Partridge & Winer, 2008; Burke *et al*., 2013; Wolf *et al*., 2018). Not returning IFs, especially when they present participants with benefits such as timely intervention, requires compelling ethical justification which this argument does not provide. The second counterargument is based on the widely held view that researchers have no default obligation to return IFs as a way of ensuring the well-being of participants. This view is grounded in the notion that while the doctor-patient relationship is fiduciary and therefore requiring the doctor to act in the best interests of the patient, the researcher-participant relationship is a contractual one requiring the researcher to only keep the promises outlined in the informed consent form (Litton & Miller, 2005). In my view this argument is not valid because it assumes that health researchers and doctors are always distinctly different. In fact, most health researchers are doctors and they do not abandon their professional obligations when they conduct research. Their professional responsibilities extend to the research setting. By invoking the doctor-patient relationship in the research context, it is reasonable to argue that researchers have an obligation to promote the well-being of participants in line with the principle of beneficence. It would seem maleficent and unethical for a researcher to withhold information regarding a medically significant IF that is actionable. The third counterargument against returning IFs is premised on issues of feasibility. Opponents argue that the time, expertise and financial resources required to interpret, validate, communicate and follow up on IFs places a burden on the research enterprise. They hold that in addition to the process being financially cumbersome, determinations about actionability, medical importance, and severity are often subjective creating the potential to cause anxiety and undue psychological distress (Bledsoe *et al*., 2012; Wolf *et al*., 2018). I submit that this argument is also not valid because; while the premise is true, the conclusion is false from an ethical perspective. It is unreasonable to argue that the ethical justifiability of an action depends on its financial

feasibility. This argument only highlights the financial and procedural challenges of returning IFs and provides no ethical or legal position.

4.2.3 Kantian Categorical Imperative

Returning IFs to participants is consistent with Kantian deontological ethics in which an action is morally acceptable if it meets the requirements of the Categorical Imperative. The first formulation of the Categorical Imperative speaks to the principle of universality; “act only on that maxim which you can at the same time will that it should become universal law”. Sharing medical information and allowing access to medical records is not only recommended by international ethical guidelines in health research, but also provided for by SA law, notably, the Constitution. Although not specific to IFs, broad interpretations of the various laws and guidelines sufficiently cover their inclusion. The second formulation of the Kantian Categorical Imperative; “act as to treat humanity, whether in your own person or in that of another, in every case as an end and never as a means to an end”, speaks to two principles; the principle of reciprocity and the fundamental ethical principle of autonomy. The principle of reciprocity suggests that those who contribute to the research enterprise as participants are owed something in return for their participation (Berkman, 2013). Although this principle is broad, a reasonable interpretation of its application in health research includes informing participants of important and actionable IFs. Participants bring essential and valuable information to the research enterprise without which research conduct would not be possible (Illes *et al*., 2006). Secondly, treating other persons as ends and not as mere means to an end promotes the respect for autonomy, which obligates researchers to provide participants with information about the possibility of discovering IFs and to establish their preferences regarding their return.

4.2.4 Utilitarian Approach

From the utilitarian approach, the return of IFs is ethically justifiable because it maximises benefits for participants while minimising risks. When participants are informed of medically important and actionable IFs, its presents them with opportunities for referral and further management which increases their overall happiness. Several scholars have stated that despite the potential harms associated with the disclosure of certain IFs, majority of the IFs discovered in health research have potential benefits for participants. In fact, some have suggested that knowing of the possibility of discovering IFs of medical value encourages participation and improves overall participant experiences in research (Eckstein, Garrett & Berkman, 2014).

The utilitarian approach also recognises the duty to rescue, which requires individuals to take reasonable steps to help those in life-threatening situations, provided that such rescue is necessary, and does not come at a significant risk of harm to themselves; is likely to succeed; and the benefit to the victim outweighs likely harm to the helper (Singer, 1972). Accordingly, a researcher acts ethically when he/she returns a medically significant and actionable IF to a consenting participant (Eckstein, Garrett & Berkman, 2014).

4.2.5 Legal Duty to Return IFs

First and foremost, the Constitution, under section 12(2) establishes the fundamental rights of all persons in SA. Regarding health research, section 12(2)(a) specifically sets out the need for informed consent as a fundamental right of all persons that participate in research. Informed consent, which derives from the principle of autonomy, requires that participants be informed of all aspects of the study including possible benefits and risks. Reasonable interpretation of this

requirement would include a discussion on the possibility of discovering IFs and a proposed plan for their management including disclosure and the preferences of participants.

The Constitution provides for several rights from within which several pieces of legislation arise. The National Health Act (NHA) (Act 61 of 2003) sets out the main legal framework for health and care which includes provisions related to health research. Although IFs are not addressed by the NHA, its sections and provisions tacitly support returning IFs. The NHA provides for the right of an individual to access health care. Pursuant to this right, the NHA requires that an individual be granted access to his/her health records where conditions allow, to enable such person access appropriate health care. In addition, POPIA and PAIA support the notion that participants have a right to receive IFs, being their personal information. This legal interpretation is further reinforced by national and international ethical instruments.

Similarly, there is a duty of care and a duty to act by health care practitioners. Failure to act in the interest of the health care user can give rise to civil claims. A heavy burden is therefore placed on the healthcare practitioner to do whatever is necessary and well within his/her power to ensure that a health care user has access to the best available health care. This is wide enough to cover situations where information in the hands of a health researcher is vital to the good health of an individual. It is therefore important that health researchers are given legal authority to discharge the duty imposed on them by the law and to give effect to the rights created by the law, as there is a compelling statutory duty placed on them to disclose IFs to participants.

4.3 Conclusion

There is sufficient support for the position that returning IFs to research participants is ethically and legally justifiable in the SA context. From the ethical perspective, the principles of beneficence and respect for autonomy support returning IFs. The ethical theories of deontology and utilitarianism support moral justification for returning IF. In addition, the laws and regulations of SA, although not explicit, provide sufficient legal backing to the return of IFs.

CHAPTER FIVE

RECOMMENDATIONS AND CONCLUSION

5.1 Introduction

The discovery of IFs has potentially serious implications for the health and psychological well-being of research participants, and in some instances, their families and wider communities. Because of their rapidly increasing prevalence, IFs have gained heightened importance and generated considerable debate worldwide. This debate centres on the ethical and legal questions about their return to participants. The laws, regulations and statutory guidelines in SA do not offer direct and explicit guidance on how to deal with IFs in health research. This study has examined the ethical and legal frameworks to establish their position on returning IFs in the SA context. In this chapter, I answer the questions raised by this research, propose recommendations and provide concluding remarks.

5.2 Recommendations

5.2.1 Is the Return of IFs Ethically Justifiable in the SA Context?

On the basis of the analysis of this research, my answer to this question is a qualified “yes”; not only is the return of IFs to research participants ethically justifiable, but also, researchers have an ethical duty and obligation to return them. This position is well-supported by the ethical principles of beneficence and autonomy and the normative ethical theories of deontology and utilitarianism.

The critical analysis done in this study has demonstrated the ethical justifiability of returning IFs to participants; however, a review of the literature shows no evidence of empirical research conducted in SA on the subject. It is my recommendation that such research be conducted to obtain the views of researchers, participants, HREC members, and other stakeholders, regarding the return of IFs to research participants.

5.2.2 Do the Laws and Ethical Guidelines in SA Promote the Return of IFs?

The SA legal framework does not explicitly address IFs; however, broad interpretation of several laws and ethical guidelines demonstrates strong support for their return to research participants. The Constitution provides for the right to access information necessary for the enjoyment of any right provided thereunder, including the non-derogable right to life and the right to access health care. I argued that the return of IFs of medical importance promotes the right to access health information necessary for the enjoyment of both rights. The statutory duty to return research findings or otherwise the right to access health records, provided for in the Constitution is also provided for by other legislation. The Constitution also provides for the need for informed consent in health research as a fundamental right enshrined in the Bill of Rights. Valid informed consent requires full disclosure of research information as already discussed. Furthermore, the ethical guidelines issued by DoH, HPCSA and SAMRC, which have *quasi* legal status in the country, are founded on the principles of ethics whose positions on the return of IFs have already been discussed in this report. These guidelines further impose several duties, such as the duty of care and the duty to act in the best interests of participants, on researchers. The law of delict imposes these same duties on health care practitioners. Failure to act in the interest of the health care user can give rise to civil claims. Lastly, several instruments issued by international bodies and organisations, of which SA is a part, either explicitly address IFs or

provide sufficient guidance on the return of research results, which can be interpreted to include IFs.

Although there is strong legal backing for the return of IFs to participants, this is not explicit within the framework. My recommendation is therefore, that the DoH ethics guidelines be amended to incorporate direct and precise guidance on how IFs in health research should be managed – particularly section 3.3 of the current guidelines (2015), which addresses data and biological materials for research purposes. Section 3.3.6, which provides guidance on informed consent, should also be expanded to include a recommendation to discuss the possibility of discovering IFs and proposed methods for their management as part of the informed consent process. Similarly, Health Research Ethics Committees (HRECs) in the country should review and update their guidelines in line with the above recommended changes to the DoH ethics guidelines.

5.2.3 Should IFs be Disclosed?

From the ethico-legal inquiry undertaken in this research, I conclude that returning IFs to research participants is ethically and legally right and justifiable. However, it is important to acknowledge that returning IFs should not be an absolute rule with no exceptions. There are circumstances when it may be inappropriate to return them. Researchers ought to ensure that the anticipated IFs, if any, and the proposed plans for their return are detailed in research protocols and consent documents and reviewed by HRECs.

5.3 Conclusion

The ethical and legal frameworks in SA render sufficient support to the return of IFs to research participants; however, this support is implicit thus creating an ethico-legal gap with possible ramifications. The laws, notably the Constitution, NHA, POPIA, and PAIA, make sufficient provisions regarding the disclosure of information, which when broadly interpreted, would include IFs. However, it is important for the ethics guidelines to be explicit on the subject. I conclude by submitting that there is a need to amend the DoH, HPCSA and SAMRC guidelines to include guidance on how IFs in health research ought to be managed.

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Investigator: Edward Mukwaya (Student Number: 820178)

Supervisor: Dr Norma Tsotsi and Dr Safia Mohamed

Department: Steve Biko Centre for Bioethics

Project title: Return of Incidental Findings to Health Research participants: An Ethico-legal Inquiry in the South African Context

Reason: Desktop Review of literature published in peer-reviewed journals. No human participants will be involved in the study.

Doctor CB Penny

Chairperson: Human Research Ethics Committee (Medical)

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UNIVERSITY OF THE WITWATERSRAND, JOHANNESBURG

FACULTY OF HEALTH SCIENCES

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