CHAPTER 5: DISCUSSION ON ETHICAL CONCERNS & THEMES

Religious tenets, doctrines and sacred texts offer insights on matters concerning life and death. However, the advancement of technology, particularly in the biomedical field, has compelled us to re-examine the religious views. This is because the religious texts were written during the ancient era, at a time, when the current technological advancement was unknown. As such, one cannot find specific guidelines or direct answers for the ethical conundrum surrounding medical discoveries. With medical developments such as ESCR, there is a need to re-examine the religious texts. This is where the religious scholars and leaders offer their expertise in making moral interpretations of the sacred texts in light of today’s modern medical discovery. The absence of an authoritative voice in major religions (except the Catholic community) has led to diverse views. In a pluralistic society like Malaysia, diverse views exist between different faiths and within the same faith.

With regards to ESCR, there is a conflict of interest between upholding the duty to respect and protect human life, with the need to alleviate human suffering, from a religious perspective (Knowles, 2009). The primary concern that needs to be dealt is whether the 5-day old blastocyst is to be regarded as a human life. To questions about when life begins, and as to whether destruction of embryos is justified for its potential to impact on medical sciences positively, we need to refer to the sacred texts.

Section 5.1 looks into the religious perspectives within the Buddhist, Hindu and Catholic traditions, alluding to the doctrine, scriptural texts and official positions on ESCR (if available). It is next to impossible to encapsulate all the religious resources; however, this researcher has examined the relevant works pertinent to the subject to give a clearer understanding on the religious principles and guidelines. The teachings
of various scriptural texts were reflected in the participants’ responses. Their responses on the ethics of ESCR are juxtaposed with the fundamental beliefs of each faith.

Section 5.2 elaborates the varying viewpoints on ESCR. The research findings are interwoven with the literature to provide a comprehensive summary on the three themes identified in Chapter 4 – sanctity of life, ‘do no harm’ and intention of the research.

5.1 Ethics of ESCR According to Religious Tradition

The Buddhist, Hindu and Catholic ethics on ESCR are explored in this section 16, alongside with the arguments by the respondents.

5.1.1 Buddhist Ethics

Buddhism was founded by Siddharta Gautama Buddha (Buddha means the enlightened one). The writings of the texts are in Pali language. Buddhist traditions are divided into Tripitika (three baskets of teachings) which consist of Discipline (Vinaya Pitaka), Discourse (Sutra Pitaka) and the third one containing profound philosophy of Buddha’s teachings, Absolute Doctrine (Abhidharma Pitaka) (Dhammananda17, 2002).

Buddhism has many schools of thought such as Theravada, Mahayana, and Mantrayana. Theravada, the oldest school of thought is practiced widely in Malaysia as well as Thailand, Sri Lanka, Cambodia, Laos, Mynamar (Svendsen & Ebert, 2008).

16 A part of the discussion appeared in my publications, as appended in Supplementary Section.
17 It is worth mentioning that the author, Venerable Dr. K. Sri Dhammananda (1919-2006), was the late Chief Monk who served at Maha Vihara Buddhist Temple in Brickfields, Malaysia, circa 1952 till his last breath in 2006.
Buddhists are guided by the Law of Karma (law of cause and effect), which is in accordance with our actions, whereby good action leads to good karma and vice versa. Buddhism also places importance on ahimsa, the non-harming principle and thus has reservations on the destruction of life (Keown, 2004), as it can be viewed as generating bad karma. Here, a question worth asking is whether we consider harvesting stem cells from embryo as destruction of life that generates bad karma.

In Buddhism, respect for life is grounded in its spiritual destiny and not its divine origin (Keown & Keown, 1995). In addition, Keown and Keown (1995), also pointed out that Buddhism does not clearly explain personhood, as existence is viewed as ‘continuum of changing states’. Thus, arguments on personhood are not significant when dealing with matters of life and death. They stated:

life in any one existence begins at conception and ends at death: in the interval between these events, the individual is entitled to full moral respect, regardless of the stage of psychophysical development attained or the mental capacities enjoyed (Keown & Keown, 1995, p.266).

It would be rather difficult to adhere to a hard and fast rule when deliberating ESCR issues. This is because though the teachings state life begins at conception and full moral respect is to be accorded to individuals regardless of their physical and mental state, the intention behind utilising a 5-day old embryo in ESCR also needs to be examined. More importantly, Buddhism regards the intention to help mankind as a higher purpose.

Buddhism places emphasis on knowledge (prajna), and compassion (karuna), and its tradition of practicing medicine aimed at developing cures to alleviate suffering of human being is illustrative of this (Keown, 2004). Despite the absence of central authority, the fundamental values such as compassion and respect for life underpin the
Buddhist approach to medical ethics, argues Keown (2005). Compassion is the basis for all good actions, and thus we are able to accept, respect and treat others in their true being, argues Ratanakul (2010). Buddhism is also centered on values of non-injury, relief of suffering, ‘no-self’, and moral authority of intuition (Campbell, 1997).

The Malaysian Ti-Ratana Buddhist Society reflects upon Buddha’s teachings based on the Four Noble Truths, acknowledges the need to study the cause of diseases in search of cures, thereby demonstrating compassion through the alleviation of the suffering that diseases always bring (Dhammananda, 2002). Hence, medical practice within the Buddhist tradition intrinsically encompasses developing such cures to alleviate human suffering (Keown, 2004). In this fashion, ESCR can be viewed as permissible. The intention of research was held as highly important by respondents BR2, BR3 and BR4.

Buddha’s teachings (Dhamma) are based on Four Noble Truths. The Four Noble Truths recognises the prevalence of Dukkha (suffering) surrounding physical and mental suffering including birth, decay, death and disease and the need to analyse the causes of sufferings to find cure (Dhammananda, 2002, pp. 98-99). Similarly, since ESCR is aimed at treating debilitating diseases to alleviate suffering of people, it can be viewed as permissible.

However, even curing sickness will not end the ‘karmic cycle’ because Buddhists seek spiritual development as a higher purpose. In relation to that, Brannigan (2010) examined the Four Noble Truths with regards to suffering and healing, as illustrated in a parable about Kisagotami who went to see Buddha seeking medicine to restore the life of her dead child. Buddha instructed her to collect mustard seeds from every household not struck by death. Eventually, the girl was not able to find a single house not visited by death. This parable tells us that emphasis should not be on bodily matters only.
Another aspect of Buddha’s teachings is The Noble Eightfold Path, which is also known as the Middle Path leading to righteous life through *Sila* (morality), *Samadhi* (Mental Culture) and *Panna* (Wisdom) which further consists of right speech, right action, right livelihood, right effort, right mindfulness, right concentration, right understanding and right thoughts (Dhammananda, 2002, pp. 102-104). This is very pertinent to ESCR, as one should have the right understanding about how it is carried out and right thoughts in embarking research for the welfare of people and not for self-gain while maintaining goodwill and compassion towards others. Buddhism’s Noble Eightfold Path does not permit harm to sentient beings (Campbell, 1997). Embryo is not a sentient being, hence, it appears that ESCR is permissible.

There is no direct answer in the scriptures to questions surrounding the ethical conundrum of contemporary scientific discoveries. However, Buddha provided a four-fold decision-making method when faced with unanticipated questions, that is recourse to: (1) original texts, (2) derive rules consonant with original texts, (3) views of respected teachers, (4) using personal discretion, and judgment (Campbell, 1997, p. D23). Likewise, respondent BR3 said that any decision on a contentious matter must be referred to the following: the five precepts, karma, rebirth, principle of non-harming sentient beings, and intention.

Keown (2004) observed that though there is no central authority in Buddhism to declare its position, the faith has no objection towards adult stem cell research. Keown stated that Buddhism does not support ESCR involving destruction of human embryos. Respondents BR2, BR3 and BR4, however, differed from Keown’s observation, expressing their support for ESCR.

While ESCR is in accordance with the Buddhism tenet [beliefs] of seeking knowledge and alleviating human suffering, there is also the line of thinking that it
actually causes harm (Knowles, 2009). Thus, there are diverse views in Buddhism rather than a single Buddhist view.

Buddhists are encouraged to seek truth and be free to interpret scriptures (Dhammananda, 2002, p. 78). At the same time, Buddhists are told not to blindly believe in anything but be open to criticism and analysis and to verify before accepting the Dhamma (Ratanakul, 2010). Buddhists are responsible for their own choices made in life. This is in accordance with Buddha’s teachings, as illustrated in Kalama Sutra, on not to accept anything based on reports, traditions, and authority of religious texts alone, but instead to reject things that are unwholesome [akusala] and inflict harm, and to accept things which are good and wholesome [kusala] (Dhammananda, 2002, p. 356). The concept of wholesomeness was also referred by BR1, when arguing that research should be done without inflicting suffering on other entities.

At this juncture, it is important to note that Buddhist ethics do not change but it is the interpretations that evolve over time. The Dharma (truth) propounded by Buddha does not change under any circumstances (Dhammananda, 2002, p. 199). The morality is embodied in the five precepts, and the first precept reminds its followers to refrain from killing.

Buddhists view the human status as the only entity which can attain enlightenment and liberation from suffering. Due to karma, it is rare to be born as a human being and one should use the opportunity to escape from perpetual birth (samsara) by following Buddha’s teachings (Campbell, 1997, p.D23). Good deeds lead to higher rebirths and of all the rebirths, ‘human rebirth is the most precious one’ because ‘humans can seek ways to transcend suffering’, states Ratanakul (2010, pp. 141-142). The ‘preciousness of human life’ was also expressed by respondent BR1, and thus objecting to creation of research embryos for ESCR.
Since Buddhism believes in rebirth, the new being bearing the karmic identity of a deceased deserves the moral respect of an adult human being (Keown, 2004). Human life begins when the gandhabba (karmic-life-force) fuses into the womb (Ratanakul, 2010). Buddhists do not believe in the existence of God and the concept of an eternal soul. Unlike Hindus, Buddhists do not subscribe to the existence of a permanent, God-created soul that transmigrates from one life to another. When the body dies, the energies or consciousness do not die, but takes another form of life resulting in a continuum (Dhammananda, 2002, pp. 131-132). The belief is that when the sperm, ovum and consciousness meet, life forms. For conception to take place, three things must invariably occur: the sexual union of parents (sannipatita), the mother in fertile period (utuni) and the presence of the gandhabba (consciousness of being) (Boisvert, 2000). Now, how are we to apply this in the context of embryos cultured in the petri dish? In view of this, three respondents, BR2, BR3 and BR4, hold the opinion that ESCR is not immoral since life begins at a later stage when the consciousness of embryos has developed. Human beings are the product of the non-material (consciousness) and material matter. Buddhists do not call it reincarnation because there is no permanent soul that moves from one life to another (Dhammananda, 2002, p. 134). To counter the concept of soul, Buddha came up with Annata doctrine which means no-soul, no-self and no-ego (Dhammananda, 2002, p.155). Buddhists goal is to attain enlightenment which frees them from the cycle of rebirth and attain nirvana (final goal of salvation).

Dhammananda (2002, p. 309), and (Ratanakul, 2010, p. 147), respectively referred to five conditions in the teachings of Buddha which must be present to constitute the evil act of killing: (1) a living being in the womb (2) knowledge or awareness it is a living being (3) intention of killing (4) effort to kill and (5) consequent death. The five conditions need to be present to constitute an act of killing, and in the
absence of any one of the conditions, the act will not constitute killing. These precepts are applied to deliberate on abortion issues. However, these conditions can be applied to ESCR as well. A 5-day old embryo is not a living being, and therefore ESCR does not breach the first condition. In view of this, respondents BR2, BR3 and BR4, hold the opinion that ESCR is not immoral since life begins at a later stage. BR4, who based his arguments on these five conditions, asserted that ESCR does not constitute killing.

In Buddhism, in line with the notion of Dana, which means charity or generosity, donating embryos for research represents good intentions, empathy, and desire to save lives. The act of saving lives even at the risk of sacrificing one’s life for the well-being of others is regarded as a higher virtue (Dhammananda, 2002, p. 221). A Bodhisatta (a person accumulating merits to be Buddha in future) donates life to save others, whereby the right to life can be transferred to others, and in the same manner ESCR can be justified through the category of ‘life donation’, argues Promta (2004).

Promta (2004), referring to Theravada school of thought (which most Buddhists in Malaysia belong to), also makes a distinction between Buddhist personal ethics and social ethics. The use of stem cells in research which could mean destroying ‘life’ may be viewed as socially moral if it is intended to cure the disease of a human person but this contradicts with Buddhist personal ethics which emphasises that destroying the embryo is a violation of its right to life. In Buddhist social ethics, the concept of benefit and happiness are emphasised. Promta (2004) pointed out the dilemma between the benefit of the greater number of people and the violation of embryo’s rights. Promta (2004) highlighted the ‘enforced donation’ found in Buddhist social ethics, in which a rape victim has the right to abort the child, and the child is perceived as enforced donation. In the same fashion, ESCR which entails the destruction of embryos can be justified for the benefit of the society.
By applying the fundamental precept of Buddhism against harm and killing, the Singapore Buddhist Federation made its stand from the point of intention to help humankind. The federation supports hESC research since the intention is to help humankind, but if it is meant to make money it is deemed unethical (Singapore BAC, 2002, G-3-33)

Dhammananda (2002, p. 352) wrote that Buddhism is the bridge between religious and scientific thoughts as it encourages Man to discover and realise his ‘potentialities’ within himself and the environment. This implies the openness of the faith in embracing vast changes in scientific research.

Nevertheless, on the whole, we can infer that as much as Buddhism is open towards medical advances aimed at helping humankind, reservation still exists as many are looking out for alternatives like adult stem cells. This was also observed in this study where one respondent, BR1, contended that sanctity of life of the 5-day old embryo has to be protected, and thus the need to look for alternatives.

Notwithstanding this is the liberal view of the three respondents, BR2, BR3 and BR4, who supported ESCR and did not see any moral difference between the use of either surplus or research embryos.

5.1.2 Hindu Ethics

Vedas, the oldest sacred text in the world, written in Sanskrit, is organised into collections called Samhita (Svendsen & Ebert, 2008). Canonical scriptures include the Upanishads [philosophical texts] (Lipner, 1989). Bhagavad Gita is the Holy book for the Hindus. Seminal writings on law include Dharmasutras and Dharmasastras; and
other sources are *Puranas* (repositories of folklore), *Mahabharata* [epic] and medical works of *Caraka* and *Susruta* (Lipner, 1989). *Caraka Samhita* (a first century text), and *Susruta Samhita* are the most important texts in Indian medical ethics (Tai & Lin, 2001). *Dharmasastras* are concerned with moral duties revealed in the authoritative text, *The Laws of Manu* (Crawford, 1974).

*Dharma* is the ethical code for behavior while *Karma* is a causal law in which all good and bad acts will face consequences in the next life (Firth, 2005). If you do good deeds, you will gain good *karma* and vice versa. Here, it is postulated that though destruction of embryo is considered as bad *karma*, the intention itself aimed at saving lives can be perceived as good *karma*. In light of that, one may argue that using surplus embryos for stem cell research is justifiable.

In Hinduism, suffering is experienced in cycles of reincarnation or rebirths, so Hindus aim to attain *moksha* (liberation of soul and eternal union with God) which ends the cycle. The fundamental belief in Hinduism is that a human person is made up of two disparate but conjoined principles; the spirit [interchangeably used as soul in most contexts] (*atman*) and matter (*prakti*), which come together to form distinctive individual (Lipner, 1989).

In Hinduism, conception is believed to be the beginning of the soul’s rebirth from a previous life (Knowles, 2009). Hindus believe the soul (*atman*) transmigrates from one life to another and thus the [present] life is seen as a transition between the previous one and the next (Firth, 2005). In other words, the soul is always there, only the body dies. The soul does not perish when the body dies but it moves to another body. According to the English translation of *Thirukkural* (Book of Law), there is a verse in chapter 34, verse 338 that states, “the bond between the body and the soul is like a bird leaving an egg shell”. This verse emphasises impermanence - that the soul quits when the body dies (Rajaram, 2009). At least two respondents, HR1 and HR2,
regard a 5-day old embryo as being merely in a vegetative state, and stressed that research involving surplus embryos is allowed. This is because a 5-day old embryo is not fully formed for the soul to dwell, thus rejecting the view that a life has already developed.

Interpretations vary on when personhood starts, as one line of Hindu tradition places personhood between three to five months of gestation (Knowles, 2009). This concurs with the views of respondents HR1 and HR2, who stated that ensoulment occurs after 90 days or later, signifying presence of life.

On the contrary, the canonical scripture, *Upanishads*, declares that the soul is already present in the sperm (Svendsen & Ebert, 2008). This can be extended to mean that there are Hindus who see the embryo as a person from the point of conception.

A detailed description of what happens at conception is outlined in Chapter 6 in *Caraka Samhita*:

In the event of intercourse thus described, the individual soul (*jiva*) descends into the union of semen and (menstrual) blood in the womb in keeping with the (karmically produced) psychic disposition (of the embryonic matter) (Lipner, 1989, p. 54)

If this traditional view is taken into account, ESCR would not be permitted. Accordingly, the embryo is viewed as a ‘spirit-matter composite’ from the moment of conception. This seems to give researchers no provision to extract stem cells, even from a 5-day old embryo.

The notion of consciousness right from the first month to the ninth month of pregnancy is deliberated in *Susruta Samhita* (Lipner, 1989). *Caraka Samhita* denotes that consciousness is present in the fertilised egg itself (Lipner, 1989). As such, there is no clear cut explanation indicating when consciousness manifests in an embryo (or
foetus), and therefore we cannot justify the destruction of a 5-day old embryo based on the tradition alone.

In general, Hinduism is protective of the embryo. The Sanskrit language refers to abortion as *garbha, bhruna-hatyā*, and *vadha*, which is to be taken as a reprehensible killing (Lipner, 1989, p.42). The *Brhadaranyaka Upanishad* (8-9 B.C.E) regards the slayer of embryo as wicked and despicable, the same way that the *Kausitaki Upanishad* regards abortion as a serious act of murder (Lipner, 1989, p. 44). This aspect of Hinduism was also highlighted by respondent HR3, when referring to embryo research.

Most discussions in Hindu ethics are made with regards to the issue of abortion and the same fundamental values (protection of embryo and personhood) may be applied in relation to the ethics of ESCR. However, Hindu ethics balances this view by adopting the *Dhayai* or compassion concept which encourages compassion towards the mother whose life may be endangered. This line of thinking was observed when respondent HR3 argued that the use of surplus embryos may be allowed considering that many lives can be saved through ESCR endeavours.

Hindu deliberations on ESCR may be found in Swami Tyagananda’s (2002) lecture at the Massachusetts Institute of Technology Religious Activities Centre. The human soul is the spiritual component and Hindus believe life begins at conception. However, Tyagananda (2002) cited an example in Hindu mythology arguing that destruction of life is bad *karma* unless it is done in “extraordinary, unavoidable circumstances, and for greater good”. Here, can the destruction of embryo in ESCR for the purpose of alleviating pain be considered as “extraordinary, unavoidable circumstances, and for greater good” is a question worth asking.

The Singapore Hindu Endowments Board allows the derivation of stem cells from 5-day old embryos to establish stem cell lines and considers the use of embryonic stem cells aimed at protecting life and finding cures for diseases as acceptable.
However, the Board also made it clear that killing a foetus is a sinful act (*bhruna-hatyā*). The Board stated that: there is ‘no non-acceptance to use embryonic stem cells’ (Singapore BAC, 2002, G-3-2). It appears that the Board is cautious in stating its stand pertaining to embryo research.

Besides the law of *Dharma* (ethical code) and *Karma* (causal law), Hinduism has always emphasised *ahimsa*, principle of non-violence, that was popularised to the world by Mahatma Gandhi. Here, it can be argued that the 5-day old embryo is not a sentient being and the subsequent destruction of embryos in ESCR is not against the principle of *ahimsa*. In line with that, it is worth noting that respondent HR4 also called for ‘less destruction’ as far as ESCR is concerned.

In the Book of *Sabha Parva* in the epic *Mahabharata*, there is a quote that for the welfare of a family, a member can be given up; and for the sake of a village, a family can be sacrificed; and likewise for the welfare of a nation, a community can be sacrificed. ESCR may look acceptable under this belief, though it does not represent the universal view in Hinduism. Respondent HR2 also pointed out that sacrificing for the welfare and benefit of others is encouraged in the scriptures.

Crawford (1974, pp. 222-223) pointed out that as far as the society is concerned, Hindu ethics (*varnasrama-dharma* and *sadharana-dharma*) is ‘reflective and contextual’ in its approach during emergency conditions and exceptions are made for the sake of others. This aptly relates to ESCR, whereby although use of embryos in research leads to destruction of embryos, ESCR can be regarded as morally permissible considering that its purpose is saving lives of people.

There is no authoritative voice in Hinduism to pronounce religious positions on stem cell research (Pew Research Centre, 2008). This is not surprising as the Hindu tradition is governed by a plethora of sacred texts, leaving the responsibility to the devotees to decide for themselves.
On the whole, there is no clear-cut stand made by the Hindu community pertaining to ESCR and openings are there for more fruitful deliberation on the matter.

5.1.3 Catholic Ethics

As there are many denominations within the Christian faith, it is beyond the scope of this study to cover the perspectives of all the denominations. Thus, this study only explores the Catholic perspective, which is the major denomination in Malaysia.

While the Buddhists and Hindus are guided by a plethora of scriptures, the Holy Bible remains the primary source of Catholic teachings, besides the encyclical letters and positions pronounced by the Vatican, the official teaching authority. The doctrines are unreservedly adopted by Catholic Churches in Malaysia and throughout the world.

The Catholic faith holds steadfastly to the belief that life starts from the moment of conception. Thus, life is sacred from that point onwards and the conceptus deserves the same respect and dignity to that of a human being. Declaration on Procured Abortion 1974, paragraph 12 says:

In reality, respect for human life is called for from the time that the process of generation begins. From the time that the ovum is fertilised, a life is begun which is neither that of the father nor of the mother; it is rather the life of a new human being with his own growth” (John Paul II, 1974).

It is to be noted here, that the aforementioned doctrine highlights that a new life begins from the moment of fertilisation. Furthermore, a statement from the Vatican
document, *Donum Vitae* in 1987 (No. 5 I 5) in response to the use of embryos obtained by IVF for research purposes declares:

> It is immoral to produce human embryos destined to be exploited as disposable biological material (John Paul II, 1987).

In the same doctrine, it was emphasised that ‘unconditional respect’ is demanded from the moment the zygote is formed, and that the ‘human being is to be respected and treated as a person from the moment of conception’ (No. 5 I 1). This is congruent to the previous teachings in the *Declaration on Procured Abortion 1974* affirming the notion of respect for human embryo.

The Catholic tradition is said to be affirmative in the stand concerning inviolability of human life as expressed in *Evangelium Vitae* (The Gospel of Life) (John Paul II, 1995). The Commandment in the Bible “Thou shall not kill” is to be extended to an unborn child as well (No 61, p. 61). However, the question worth asking is whether this commandment can be applied to the 5-day old non-sentient, unborn ‘entity’ as well.

Defending the life of the weak and threatened is raised in the Bible (Exodus 21:22). Again, the question worth asking is whether we can extend the concept to those unborn 5-day old embryos, regarding them as weak and defenseless, thus needing protection. Interestingly, referring to Book of Exodus, respondent CR2 expressed the view that human dignity is all about defending the weak and voiceless in society, and he believes it goes for the embryos as well.

*Evangelium Vitae* (John Paul II, 1995) doctrine contains Biblical verses which affirm the notion of inviolability of life. Some of the Biblical verses quoted in the doctrine are:
No 39, p. 39:

"For God made man in his own image" (Genesis 9:6)

This recognises that every being is the creative work of God, and thus human life is sacred right from the beginning.

No 42, p. 41:

“Be fruitful and multiply, and fill the earth and subdue it; and have dominion over the fish of the sea and over the birds of the air and over every living thing that moves upon the earth” (Genesis 1:28).

This shows that God entrusted Man to promote life on Earth. But, how do we apply this when we are confronted with ESCR which involves destruction of embryo in order to save lives?

No 44, p. 44:

"Before I formed you in the womb I knew you, and before you were born I consecrated you" (Jeremiah 1:5)

This can be loosely interpreted that personhood in God’s eyes has begun even before reaching the embryo stage.

No 44, p. 44:

“For you created me in my inmost being, you knit me together in my mother’s womb” (Psalm 139:13).

This implies the dignity of the unborn child signifying the awe and reverence of God’s creation.
No 83, p. 84:

“I am fearfully and wonderfully made” (Psalm 139:14)

According to John Paul II (1995), this tells us to accept every individual as a ‘wonder’.

With all the aforementioned disciplinary traditions, [Pope] John Paul II (1995) declared in the *Evangelium Vitae* (No 62, p. 63) that ‘abortion constitutes a grave moral disorder, since it is the deliberate killing of an innocent human being’, further affirming that these are not papal infallibility but laws transmitted by Church tradition and taught by universal Magisterium.

Now, a question well worth thinking about is how do we apply this stand which clearly prohibits the killing of an embryo, in the context of ESCR? The Pontifical Academy for Life (2000) has released the ‘Declaration on the Production and the Scientific and Therapeutic Use of Human Embryonic Stem Cells’. This Declaration is the Catholic view of the moral status of embryonic life. To the question as to whether it is moral to produce living human embryos to obtain stem cells, the Declaration states that the ‘human embryo from the moment of union of sperm and egg is a well defined identity…and thus cannot be considered as a simple mass of cells’. In reference to that, respondent CR1 said that “human life in the form of embryo should not be treated as a subject or product”.

Similarly, in an address at the International Congress on Organ Transplants, [Pope] John Paul II (2000) announced that:

…insofar as they involve the manipulation and destruction of human embryos, are not morally acceptable, even when their proposed goal is good in itself…but rather make use of stem cells from adults…in order to respect the dignity of every human being even at embryonic stage.
The recent doctrine released by the Vatican, *Instruction Dignitas Personae* endorsed by Pope Benedict in 2008 responding to bioethical questions (Benedict, 2008), asserts that the teachings of *Donum Vitae* twenty years ago remains applicable. *Dignitas Personae* reiterates that using embryos left from infertility procedure for purpose of treating diseases is unacceptable because embryos are treated as biological material resulting in destruction (No 19). Thus, the practice of IVF itself faces objection from Catholics as a huge number of embryos are sacrificed in every IVF cycle (No 14). Such an act is also against natural procreation and the unity of marriage itself (No 12). The Catholic faith sees life as a gift of God created through the reciprocal love between the spouses. Thus, artificial reproduction involving human intervention is not acceptable.

Therefore, the argument of using surplus embryos for ESCR instead of being discarded has not gained acceptance in the Catholic community as they perceive the destruction of embryo for research in the same manner as throwing those embryos into the trash. Similarly, respondents CR1, CR2 and CR3, unanimously forwarded their opposition towards the use of surplus embryos for ESCR.

The origin of stem cells must be taken into consideration, asserts [Pope] Benedict (2008) in *Dignitas Personae*. The method of obtaining stem cells from human embryos (which is argued as a living being) resulting in destruction of embryo is considered immoral, while obtaining stem cells from other sources which do not impose harm on the subject such as adult stem cells, umbilical cord and cadaveric foetuses (died of natural causes) are considered moral (Benedict, 2008, No 32). Throughout the doctrine, the notion of human dignity is explicitly emphasised.

Thus, it is very clear that the Catholic faith opposes ESCR because it does not protect and treat embryos as worthy of respect and dignity. The sanctity of life is a norm associated with human dignity, is well-accepted within Catholic community
Thus, the entire argument revolves around the sanctity of life, in which life is a sacred gift of God.

However, there are liberal Catholic theologians in support of ESCR. The human embryo prior to primitive streak is not considered to be a human person or has potential to be one, as a certain amount of development is required to accord status to a conceptus (Farley, 2000, 2004). Other liberal Catholics including Jean Porter and Christian Kummer, also appear to support ESCR (Reichhardt et al., 2004). There are also Catholic ethicists who whilst protecting the dignity of foetus and embryo, have been in support of ESCR in good conscience (Peters, Lebacqz & Bennett, 2008, p. 58).

Farley (2004) pointed out that those official religious documents ‘leave open the question of the moment when the spiritual soul is infused’. Unlike Islam, there are no Biblical verses which clearly explain when ensoulment occurs and thus it is taken that ensoulment occurs at conception. The majority of Catholics who oppose ESCR, are not troubled by this argument because it is better to accept that ensoulment occurs at conception - giving the benefit of doubt - rather than being speculative because no one can come up with a definite answer as to when the soul is infused into the body. This was observed in all the respondents, particularly CR3, who concurred that “since we do not know when human life begins, it is best to provide protection of embryos from earliest stage of conception”.

In addition to the above, it is to be noted that the Catholic tradition has always been unified in its stand that demands commitment to community including the poor, marginalised and the most ill (Farley, 2001). This raises concerns as to whether the benefits of ESCR will actually benefit the poor. Respondent CR2 also called the mushrooming of ESCR practice as a lucrative venture. While we cannot run away from this, Prieur et al., (2006) offered guidelines to be used by Catholic institutions in implementing ESCR, and also pinpointed that there will always be a ‘legitimate
“dimension” to make some profits from researches as long as the therapies are made available to the deserving patients.

The ethics of funding ESCR was also discussed by Doerflinger (1999) from a Catholic viewpoint. Doerflinger (1999) asserted that obtaining stem cells from embryos raise serious moral concerns and articulated the significance of exploring alternatives like adult stem cells. In another paper, Doerflinger (2002) asserts that excluding embryo from ‘personhood’ invites far ranging impacts.

We are exposed to diverse views from the three testimonies presented in the United States National Bioethics Advisory Commission (NBAC) in 2000 by Margaret Farley, Kevin Wildes and Edmund Pellegrino representing the Catholic tradition. Farley (2000) in her testimony argued that ESCR can be carried out without the need to sacrifice the Catholic tradition, ‘to respect human life, promote human well-being…oppose commercialisation of human life and promote distributive justice’.

On the other hand, Wildes (2000) in his testimony to the Commission, said that use of surplus and research embryos is itself destruction of human life for the sake of research. Wildes also acknowledged the long line of reflection pertaining to ‘moral standing of early human life’. Wildes agreed that it is hard to confer personhood at embryonic stage but, by and large, one’s view on status of early embryo within Catholic tradition is very much tied to church authority.

Meanwhile, Pellegrino (2000), emphasised the teachings that ‘human life is a continuum from the one cell stage to death’, and deserves dignity at every stage. Pellegrino (2000) pointed out that the Catholics reject the idea that moral status is accorded by degrees of development. Furthermore, he raised the point that embryos created specifically for research do not have a different moral status than the ones created for infertility treatment because in both the cases, the embryos are treated as means to an end and the ‘inherent moral status is violated’.
As such, bearing the fact that there exists various ‘moral reflections’, Mendiola (2001, p.122-123) invites Catholic moral theologians and scholars to assess the various moral implications and reflections on ethics of ESCR. Mendiola believes that toleration and ‘proportionate’ reasoning may allow Catholic theologians to engage in debate on ethics of ESCR which is consistent with the principle of inviolability of embryonic life, but not totally dependent on it.

At the global level, we are presented with stands made by Bishop congregations in countries embarking on ESCR. United States Conference of Catholic Bishops (2012) emphasised that the Catholic Church has always been in support of ethically responsible stem cell research (SCR), such as research on adult stem cells and umbilical cord, in countries like Australia, South Korea and United States. The Conference reiterated its opposition to ESCR as we must respect lives at all stages, especially when the underlying goal of the research is also to save lives. Similarly, the Catholic Bishops’ Joint Bioethics Committee (2005) representing the Bishops’ Conferences of England and Wales, Scotland and Ireland, supports a ‘total ban on destructive embryo research’ even if it is meant for treating diseases; reflecting the established teachings of the Catholic Church.

Due to its influence, Catholic teaching against ESCR is seen as a ‘blanket prohibition’. However, it is to be noted that the Catholic Church does not oppose stem cell research per se, but it is more concerned about the [embryonic] sources from which the stem cells are derived (NBAC, 1999, p.99). The major concerns among the Catholics with regards to ESCR are: the moral status of early embryo, and the need for distributive justice in order to reach to the poor (NBAC, 1999, p.100).

On the whole, it is clear that the Catholic tradition opposes destruction of embryos for stem cell research (SCR). However, recent developments have paved the pathway for liberal scholars to raise their concerns to what they believe, because the
teachings are rather dogmatic in pronouncing positions in light of medical advancements.

Besides that, the emphasis on human dignity associated with the notion of sanctity of life, right from the moment of conception is prevalent in the Catholic teachings as compared to other mainstream religions in Asia such as Buddhism and Hinduism. Thus, a constructive discussion evaluating the Church teachings and doctrines to weave an understanding between the realms of Science and religion is crucial at this point of time.

5.2 Varying Viewpoints of Major Religions on ESCR

Ethics of ESCR according to Buddhist, Hindu and Catholic tradition were presented in the previous section, alongside with the moral interpretation of the respondents. This section discusses the rationale and motivational factors behind the ethical responses of the Catholic, Buddhist and Hindu leaders, which shape their moral standing on ESCR\textsuperscript{18}.

The ethical conundrum of ESCR centres on the question about beginning of human life and the moment of ensoulment. Religious tenets are sought to answer these questions. For this study, the ethical discussion centres on the views of Buddhism, Hinduism, Catholicism (major denomination in Christianity) and Islam. This section presents the viewpoints of those religions.

The central focus of religious convictions and apprehensions are on the identity, dignity and manipulability of embryos (Cole-Turner, 2003, p.13). Accordingly, the complexity of arguments gives rise to ‘indecisive’ and ‘inconsistencies’ of standpoints.

\textsuperscript{18} A part of the discussion appeared in my publications, as appended in the Supplementary Section.
For instance, there is ‘inconsistency’ in the way society reacts to embryo research for therapeutic use, but allows infertile couple to generate embryos through infertility treatment and to discard the surplus embryos (Cole-Turner, 2003, p.16).

The question about when life begins has become the bone of contention when dealing with the ethical issues on ESCR. This is where the religious views, to a large extent, have influenced the direction of the discussion. The controversy lies not in stem cell research but specifically in hESC which involves the destruction of human embryos for research purposes.

For the purpose of this discussion, a significant referencing has been made to the book Sacred cells: Why Christians should support stem cell research by Peters et al. (2008), and a book chapter on “Religious perspectives on embryonic stem cell research” by Jafari et al. (2008).

Past studies reflected on formation of primitive streak on day-14 as the reference point in development of human life. However, the morality of ESCR varies considerably according to religious interpretations on moral status of embryo. Jafari et al., (2008, p.81) summarised varying religious point on the moral status of an embryo. Accordingly, the Roman Catholics hold the belief that embryo acquires full moral status from the moment of conception. The Buddhists and Hindus are more concerned about ‘ramifications to spiritual life’, taking into account karmic considerations, thus making ESCR possible. On the other hand, Islam holds that a 5-day old embryo at blastocyst stage has no moral status.

This study advances three value concerns underlying the ethical reasoning of Buddhist, Hindu and Catholic leaders which subsequently shape their respective moral standings regarding ESCR. These are the ‘sanctity of life’, the principle of ‘do no harm’ and the notion of ‘intention of the research’.
5.2.1 Sanctity of life

All the respondents voiced their ethical concerns deliberating on the value of sanctity of life. The Buddhist and Hindu respondents were divided as to whether a 5-day old embryo constitutes life.

Keown (2004), a renowned writer on Buddhist ethics, points out that Buddhism does not support research on human embryos that entails the destruction of human life. However, in this study, the Buddhist respondents (except BR1), view that life only begins when there is consciousness, which takes place at a later embryonic stage, and thus forwarded their support for ESCR. The Hindu respondents, (except HR3), generally, believe that the presence of soul marks the real presence of life, and that ensoulment only occurs around 3 months from time of fertilisation according to Hindu scriptures like Thevaram and Thirumanthiram.

It appears that concerns on sanctity of life are much more prevalent among the Catholic respondents, who stressed that life begins from moment of conception.

The principle of sanctity of life was discussed by Kohl (1974). Accordingly, the Roman Catholic is grounded on the belief that human life is sacred, emphasising the following argument that “one ought never to kill an innocent human being because life is sacred”. This argument leads to the core question as to whether the destruction of a 5-day old embryo consisting of hundred cells is viewed as termination of human life. Here, it is important to note that the Catholic respondents in this study were of the view that discarding surplus embryos or destroying embryos for ESCR, both constitute termination of life.

The Vatican is the official teaching authority of the Roman Catholic Church, and has become the ‘unappointed voice of global Christianity’ (Peters et al., 2008, p.111). In Catholicism, the Magisterium is the teaching authority, which is vested by
the Pope, and by the Bishops who are in communion with the teachings. As such, reasonings pertaining to moral issues are delegated in Vatican, before Declarations and Encyclicals are released, and abided by the national Bishop Congregations of every country and the Catholic churches worldwide.

In general, it is taken as Gospel truth by the Roman Catholics that an embryo is a human life from the moment of conception which deserves protection and respect (though they recognise the fact that the embryo is not a human person yet). The Catholics also believe that the soul, which is the sign of life, is present from the point of fertilisation; thus, a 5-day old embryo is a living soul. This definition came in 1869 when Pope Pius IX declared that an embryo has full human status from point of fertilisation, superseding the medieval Church belief that an embryo acquires a soul only when is in a recognisable human form (Lachmann, 2001). Although there is no scientific evidence on the moment of ensoulment, the argument is to refrain from harming the conceptus and thus the need to accord protection right from the beginning. The Vatican takes a ‘creationist position’ that God breathes in individual soul to each person (Peters et al., 2008, p.122). This has led to the view that personhood is tied to conception (Peters et al., 2008, p.124).

Today, the majority of Catholics has rejected infertility treatments, and opposes the use of embryos in stem cell research, whether it is surplus or research embryos – establishing a consistent standpoint. The Catholics, however, have no objection to adult stem cell research.

The principle of human dignity, is associated with sanctity of life in Roman Catholicism. This was also pinpointed by all the Catholic respondents in this study. The question is whether the embryos have dignity, which warrants protection against destruction for research purposes. Peters (2001, p.137) in his analysis on theology and dignity, concluded in his paper that the defense of human dignity for the ‘defenseless
embryos’ appears to be dribbling away, when we see the potentials of ESCR in uplifting the quality of human health.

The concept of dignity from the moment of conception is articulated by the Vatican, which affirms the moral protection of embryos from the beginning. This is because, the presence of soul makes the zygote sacred, and the sacredness gives dignity to early embryos, thus making prohibition to scientists from conducting research on embryos as old as 5-days (Peters et al., 2008, p. 217). This view was also clearly put forward by all Catholic respondents in this study, highlighting that embryonic life is sacred. There is a counter-argument on the relation between the spiritual soul and moral dignity teased out by ‘embryo protectionists’. The presupposition that the presence of a ‘spiritual soul’ marks the moral personhood begs the question that “if individuality matters to ensoulment, then ensoulment cannot be said to occur at conception” (Peters et al., 2008, p. 149).

Nonetheless, the Biblical teachings about concerns for the weak and vulnerable, including the unborn, place embryo protection within the ethical framework (Peters et al., 2008, p. 50). In line with the Biblical teachings in the Book of Exodus that champions the rights of the harmless and defenseless, some of the Christians extend this view to accord protection for early embryos. This was also pinpointed by one of the Catholic respondent, CR2, that the society has social responsibility to protect the weak and voiceless embryos as much as we champion for the rights and dignity of another human individual. However, the question as to whether concepts on human dignity and human rights can be extended to the early embryos, requires further evaluation.

In short, it is clear that the Catholics have forwarded outright objection on ESCR. They maintained the notion of the sanctity of life and emphasise inviolability of early embryonic life. As such discussions are consistently skewed towards limitations
on the use of embryonic stem cells. Human embryonic stem cell research is proscribed. Catholicism, therefore, stands apart from Islamic, Buddhist and Hindu ethics of ESCR.

The deliberation by the Islamic scholars also centres on the principle of sanctity of life. However, unlike the Catholic Church, the Islamic scholars (Sachedina, 2000; Fadel, 2012) referring to the Quranic verses on stages of human development maintain that the soul is only breathed into the body when the foetus is 120 days old in the womb. Therefore, a 5-day old embryo does not have a soul, and therefore it is not a human life yet. In line with that, the fatwa issued by the three Islamic Fiqh (Jurisprudence) Councils in Jeddah, USA and Jordan supports the use of surplus embryos for ESCR, but prohibits the use of research embryos (Nordin, 2011). The Malaysian fatwa is also in congruent with that. We can safely say that the concept of personhood in Islam develops with time, referring to the ensoulment process that only occurs at the fourth month.

5.2.2 ‘Do no harm’

The notion ‘do no harm’ embodies the medical ethics principle of ‘non-maleficence’, that is to refrain from doing harm first, before doing any good. The question is whether the research on a 5-day old embryo inflicts harm on the embryo.

In this study, all the respondents, in particular the Hindus and Buddhists proposed that the religious principle of ‘do no harm’ needs to be considered when dealing with human embryos. Respondents deliberated on the principle of ‘do no harm’ on two key points, that is not to inflict harm on a living entity, emphasising ahimsa, and secondly not to harm the soul in an embryo. The Buddhists and Hindus applied the religious principle of ahimsa when deliberating on the permissibility of ESCR. Ahimsa, loosely translated as non-violence and non-hurting, is similar to the clause ‘do no harm’
(Jafari et al., 2008). The argument is that one should abstain from doing research that induces harm on a human life, before doing any good. Now, whether the research on a 5-day old embryo inflicts harm on the embryo depends on the moral evaluation of the religious leaders.

The Hindu respondents deliberated from the aspect of ensoulment. The Hindu respondents, HR1 and HR2, referring to scriptures, generally argued that for a 5-day old embryo, the soul is not present and functional, thus there is no necessity to object to using surplus embryos for ESCR.

This is where the Buddhists tend to differ, as they do not subscribe to the concept of an eternal soul. The Buddhists believe in non-self material, which is the karmic energy (consciousness) that travels from one life to another. The Buddhists respondents BR2, BR3 and BR4, except respondent BR1, presented their argument from the aspect of consciousness. Since the 5-day old embryo has not developed consciousness yet, the Buddhists in general argue that research on embryo does not inflict any harm, and thus allays the restrictions on ESCR. The only difference from the Hindus is that Buddhists do not refer to the term ‘soul’. Instead, they counter the concept of soul with ‘annata’ or concept of non-self (Dhammananda, 2002, p.155). Though it is termed ‘annata’ by the Buddhists, this researcher deduces that the underlying idea is the same, that is the life energy is not present in a 5-day old embryo, and thus eliminating moral qualms against ESCR.

On the other hand, the Catholics believe that an embryo is a living soul from moment of fertilisation. According to the Catholic respondents, research on embryos inflicts indescribable harm both to embryos and the souls in them. Thus, ESCR is viewed as violating the principle of ‘do no harm’, and thus it is rejected.

At this juncture, it is worth noting that in the United States, an organisation called Do No Harm founded in 1999 [also known as Coalition of Americans for
Research Ethics], is lobbying against research involving destruction of human embryos, and maintaining that human embryos should not be used as a means to an end. Accordingly, the ‘do no harm’ principle is violated in ESCR (The Coalition of Americans for Research Ethics, 1999). The organisation joins other Catholic bioethicists in upholding the dignity of embryos (Peters, 2001, p. 129).

The principle “first, do no harm” is also demonstrated in Islamic teaching supported with a Hadith:

There should be neither harming nor reciprocating harm

(Hadith – Sunan Ibn Majah 2340).

However, it is beyond the scope of this study to explore on this Islamic value, and further evaluation is recommended in future studies.

5.2.3 Intention of the research

Intention is an intrinsic aspect in Buddhism and Hinduism, referred to as sankalpa, which is beyond mere goals and objectives. An action is deemed as good karma because of its intentions. The Buddhists and Hindus give priority to the intention of the research.

It is worth highlighting that none of the Catholic leaders underscored their views from the point of view of intention of the research as the Catholic Churches oppose the destruction of embryos in ESCR.

The Hindu perspectives on biomedical reasoning are clearly presented by Crawford in his book *Hindu bioethics for the twenty-first century*. According to him, the Hindu bioethics is based on three basic principles:
(i) The transcendent character of human life expressed through the principles of sanctity of life and quality of life

(ii) The duty to preserve the health of individuals and community

(iii) The duty to rectify imbalances in the processes of nature, and to repair states that threaten life and well-being of humans

(Crawford, 2003, p.6)

The aforementioned principle (i) seems in line with the findings of this study which reflect the responses of the Hindu respondents on the preciousness of human life. More importantly, the Hindu respondents emphasised on intention, in line with the abovementioned principle (ii) and (iii): the potential of the research aimed at saving lives, improving health and maintaining the well-being of the community, and placing importance on spiritual element - in accordance and in harmony with the Law of Karma and Dharma.

For the Buddhists and the Hindus, it is difficult to obtain a definite perspective on ESCR as both the religions do not have a central authoritative voice to decide on ethical matters. It is also important to note that debates about embryo research tend to focus on the doctrine of karma, a view shared by both Hindus and Buddhists (Jafari et al., 2008). Both Hinduism and Buddhism are guided by the Law of Karma, which stresses that every act can be deemed good or bad depending on its consequences. Thus, the primary focus of the Hindu and Buddhist respondents is on the intention of the research itself. If the “intention of the research” is to help humankind, then it is considered ethical by Buddhists and Hindus (Hug, 2006). Jafari et al. (2008) also noted that the discussion pertaining to ESCR according to the Buddhist and Hindu thinking, centres on the intentions of the scientists involved and the potential cures, ensuring a compassionate course for all.
It is along this line of argument that this researcher draws parallel between the motivationally driven intention of the research by the Hindus and Buddhists, with the Islamic ethos which supports research as a knowledge-seeking endeavour. Similar to Islamic ethics, Hindu and Buddhist teachings also deliberate strongly from the point of saving human lives, giving priority to alleviating suffering in human persons. Islam views that donating surplus embryos for research aimed at saving lives as an obligation and as an act of faith. As summarised by Peters et al. (2008), Islam emphasises that we have a moral obligation to improve the quality of health and well-being of human persons, and as such it justifies the support for ESCR. Research is a knowledge-seeking activity, a noble Islamic ethos. This is deduced within Hinduism and Buddhism as intention of the research for good causes. Hindu and Buddhist perspectives give importance to the potential benefits of the research on human populations and this appears quite similar to the Islamic consensus on the ethics of ESCR.

In Islam, the concept niat - which means intention and sincerity - is more important than the act itself, and it determines whether an act is sinful or not. However, this study does not focus on this Islamic value, and further evaluation is recommended in future studies.

From this study, two broad ethical guiding principles may be derived from Buddhist and Hindu thinking regarding the issue of ESCR. Firstly, Hindu and Buddhist ethics deliberate from the intention of saving lives. The good intention that drives stem cell research, is held as noble and in high esteem according to both traditions.

Secondly, the concept of donation is employed by the Buddhists and Hindus when arguing for the use of surplus embryos in ESCR, the same way that arguments have been made in special circumstances that allow abortion. The mother’s endangered life must be given greater weight than the foetus. In the same manner, the right of a
rape victim to abort the child is perceived as ‘enforced donation’ (Promta, 2004). In the same fashion, using surplus embryos for research is permitted.

In this sense, the findings of this study differ from a paper by Keown (2004) where he states that generally all Buddhists oppose research on human embryos. Reflection by Promta (2004) on this issue is especially enlightening because he offers fresh interpretation through the philosophy of Buddhist social and personal ethics, which is also observed in this study where a diversity of views exists within Buddhist and Hindu tradition.

5.2.4 Summary

In summary, Islam views a 5-day old embryo as not ensouled to mark the presence of life, and therefore surplus embryos can be used in ESCR. On the other hand, the concept of personhood in Buddhism and Hinduism remains unclear. Buddhists and Hindus are more concerned about ‘ramifications to spiritual life’ (Jafari et al., 2008) and therefore ESCR is allowed if it is in accordance with concept of *ahimsa*. Here, it should be noted that Catholicism stands apart from the rest opposing the use of surplus and research embryos, as Catholics believe ensoulment which marks the presence of life begins from the point of conception. Further studies are required to evaluate whether the concept of ensoulment is sufficient to examine the ethical standpoints on ESCR from religious point of view.

Peters et al., (2008) highlighted the fact that as far as embryo protection is concerned, the Islamic theology does not support the Vatican position that associates ensoulment with dignity. Islam does not warrant protection of a human being for the 5-day old embryos. Catholicism explicitly opposes ESCR, regardless of the source of
embryos. This is demonstrated in this study where Catholics maintain their belief on the inviolability of life which begins at earliest stage of fertilisation - largely influences their stand. Walters (2004) has observed that the presence of a ‘centralised authority’ in Catholicism may be responsible for adjudicating ethical disagreements, unlike Hinduism and Buddhism where there is no central authority, resulting in a diversity of views. Foong (2011) also wrote that the absence of a single authoritative voice has led to interpretations of holy texts.

Taking stock of the ethical viewpoints of Buddhist and Hindu leaders it appears that the donation of leftover IVF embryos for research is generally accepted. Islamic deliberations also point to this conclusion. The obligation to save lives via stem cell research is also the strong factor that supports ESCR.

It is observed that the Hindu and Buddhist respondents take up a more nuanced position and are more inclined to accept ESCR in reflection of the notion of saving lives, alleviating suffering and the noble intentions of research. A diversity of views is seen to exist within Buddhism and also Hinduism. The Buddhists and Hindus in Malaysia have not pronounced any formal positions regarding the ethics of ESCR. Interestingly, these religious leaders embrace the advantage of an absence of a central authority which encourages individuals to seek personal understanding from the scriptures. Buddhism and Hinduism do not indoctrinate or impose the values on their followers. Unlike the Buddhist and Hindu respondents who gave full but cautious consideration to the benefits and potential of ESCR, the Catholic respondents cannot be dissuaded from any of the official Church teachings on the sacredness of human embryonic life.

Every religion believes in the sacredness of life and the moral duty not to harm a human being. While the very practice of ESCR itself is seen as a good act in view of its

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19 This information appeared in my publications, as appended in Supplementary Section.
overriding aim to seek cures for diseases, the nature of the research which entails the
destruction of human embryos has elicited ethical questions. The question as to where
to draw the line, meaning, when the embryo deserves full moral protection remains
elusive. Nevertheless, all the respondents affirmed that they are not against scientific
advancement but have concerns where it impinges on human life.

All the respondents, regardless of religious backgrounds, have underscored their
views from the vantage point of sanctity of life. Respondents also deliberated on the
principle of ‘do no harm’. They either discourage research that inflicts harm on living
entities or allow ESCR with reservations. The Buddhists and Hindus gave priority to
the potentials and intention of the research itself, thus, ESCR is encouraged for a good
cause. On the contrary, none of the Catholic respondents viewed the intention of the
research as a motivational factor to approve ESCR. The Buddhists and Hindus gave
their priority to the intention of the research, which set them apart from the Catholics
who emphasised on sanctity and inviolability of life.

On the whole, there is a wide spectrum of religious views pertaining to the use
of embryos in stem cell research. Buddhists and Hindus allow ESCR as long as the
cardinal virtue of ahimsa is upheld. Research must also proceed from good intentions.
Meanwhile, Catholics are concerned about inviolability of embryonic life. Catholics
believe that moment of ensoulment which marks the presence of life begins from point
of conception. As such, Catholicism explicitly opposes research on human embryos.

Findings show that the three value-laden themes dominate the moral reasoning
of the religious leaders namely: sanctity of life, do no harm and intention of the
research. This study has also shifted the focus of ethical debate from moral status of
embryo to other ethical concerns such as intention of the research, thus giving
recognition to the benefits of research itself.
As Tyagananda (2002) puts it, religious perspectives involve interpretations and how one deals with the modern discoveries with possibilities not thought of in the ancient doctrines. Religious beliefs in the sanctity of life appear to clash with human desire to alleviate suffering and cure diseases (Reichhardt et al., 2004). In general, taking into account the multi-religious make-up, religious groups have indicated that research to alleviate suffering is encouraged rather than discouraged. Thus, it has become highly important that fundamental ethical issues in ESCR transcending religion needs to be addressed in order to formulate rules and guidelines (Reichhardt et al., 2004).
CHAPTER 6: RESEARCH FINDINGS & DISCUSSION

In line with the second objective of this study, table 6.1 summarises the ethical viewpoints of the respondents on the use of surplus and research embryos in Malaysia. An analysis follows, alongside with literature on the moral distinction between the two embryo sources. The literature helps to situate my research as well as to contextualise the viewpoints of the religious leaders (respondents) in the broader ethical debate on ESCR.

Finally, in line with the third objective of this study, table 6.2 summarises the standpoints and recommendations of respondents towards attaining consensus on ESCR in Malaysia. An analysis follows, alongside with literature on the challenges in arriving at a consensus.

On the whole, existing literature alongside with the research findings are presented, to capture the ethical debates on ESCR.
Table 6.1: Review of the ethical viewpoints of religious leaders pertaining to use of surplus embryos and research embryos for ESCR in Malaysia

<table>
<thead>
<tr>
<th>Respondent</th>
<th>Use of surplus embryos</th>
<th>Use of research embryos</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>BR1</strong></td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>Because the embryo is going to die anyway... Instead of wasting it completely knowing that is going to die, then is more useful if use it for some kind of research.</td>
<td>...we respect life, and in the process half way you destroy it, you know from the beginning you going to destroy it, you are not respecting life</td>
</tr>
<tr>
<td><strong>BR2</strong></td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>If it [spare embryo] can be used, may as well be used. Why discard? Why destroy something that you can use it for good purpose.</td>
<td>So, they are creating these [embryos] with good intention. So, you are donating something for a good cause. It is ok, this only cells. And we are intentionally creating these cells, to help another being.</td>
</tr>
<tr>
<td><strong>BR3</strong></td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>Using surplus embryos, acceptable if with good intention and good clinical practice. Must get the consent of that couple.</td>
<td>No problem... I have to keep to this to see that the intention has to be good.</td>
</tr>
<tr>
<td><strong>BR4</strong></td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>Destroying is really a waste, if using in curing people and helping saving lives of people, is a wonderful thing.</td>
<td>Purposely creating but you are creating with the permission of people (donors), right? There’s no life forming into human, creating to help save someone’s life (cure diseases). I don’t see very clearly negative part for the religious point of view.</td>
</tr>
<tr>
<td><strong>HR1</strong></td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>Is allowed, because even if you don’t do research on it, it will [be] discarded. Instead of discarding without any good purpose, if you use it for good purpose, is allowed, towards the benefits.</td>
<td>...the embryo has the opportunity to become the body later for the soul to come in. But, here, from the beginning is very clear that you don’t want these embryos to develop into body. So, your purpose is very wrong. You purposely creating the embryos not to allow its objective, the opportunity for soul to come in.</td>
</tr>
</tbody>
</table>
Table 6.1, continued

<table>
<thead>
<tr>
<th>Respondent</th>
<th>Use of surplus embryos</th>
<th>Use of research embryos</th>
</tr>
</thead>
<tbody>
<tr>
<td>HR2</td>
<td>Yes In a lot of Puranic stories when there’s excess, they will donate, they share with the poor. In other words, rather than throwing [embryos] away, why not use for research purpose for good cause.</td>
<td>No If option to create embryos for research purpose only, I don’t think Hinduism will encourage that, for a simple reason that [when] use of surplus embryos can be encouraged, why another one to create for research only? This one to create for laboratory purpose, it means we have another intention. We don’t know what their intention is. Their intention is good or bad, we’re not sure.</td>
</tr>
<tr>
<td>HR3</td>
<td>Yes It is there, the Dhayai, parivu (caring), there is a loophole. Ideally the wasted ones is sort of what we can use.</td>
<td>No ...they don’t have to become avaricious to create new ones. From Hindu point of view they are incurring bad Karma.</td>
</tr>
<tr>
<td>HR4</td>
<td>Yes If surplus embryo can be used properly, by all means, but avoid wastage as much as possible. If is the question of going to wastage and using for research, that (option) probably is better</td>
<td>No Creating should be limited to needs, must not be misused. Personally it should be avoided.</td>
</tr>
<tr>
<td>CR1</td>
<td>No The church is not against SCR, but against ESCR because of destruction of human lives... I consider using both [surplus and research embryos] as equally evil.</td>
<td>No The church is not against SCR, but against ESCR because of destruction of human lives.</td>
</tr>
<tr>
<td>CR2</td>
<td>No There’s no lesser evil between two immoral situations [surplus and research embryos]. Firstly Catholic Church is against IVF.</td>
<td>No You cannot intentionally create life and expose it to destruction.</td>
</tr>
<tr>
<td>CR3</td>
<td>No In first place, don’t do it.</td>
<td>No ’No’ to ESCR</td>
</tr>
</tbody>
</table>
6.1 Arguments on the Use of Surplus and Research Embryos

After presenting at length the ethical standpoints and deliberations of the major religions on ESCR, it is only appropriate now to zoom into the arguments with regards to the two sources of embryo. This section is in line with the second objective of this study, which is to investigate the ethical viewpoints of the Buddhist, Hindu and Catholic leaders with regards to the use of surplus and research embryos for ESCR. Earlier in Chapter 4, the analysis of data has already shown some findings in line with the second objective, on whether the respondents generally permit the use of surplus and research embryos for ESCR, or not.

In reference to Table 6.1, specific arguments from the respondents with regards to the two embryo sources are now examined further, followed by relevant literature. From Table 6.1, the following can be summarised:

1. Generally all Buddhists representatives approve ESCR and do not see any moral difference between the use of either surplus or research embryos, except for one Buddhist leader who did not agree to the use of research embryos.
2. All Hindu representatives approve ESCR but only surplus embryos to be used. The use of research embryos should be prohibited.
3. All Catholic representatives plainly disapproved ESCR, regardless of whether surplus or research embryos are used.

One Buddhist respondent, BR1, agreed to the use of surplus embryos for research on the grounds that ‘the embryo is going to die anyway’. He argued that it would be better to use the embryo for research rather than discard it as waste. Nevertheless, he objected to the use of research embryos pointing out that the act denotes disrespect for life. He questioned the need to create research embryos, saying
that, “[i]f you know from the beginning you going to destroy it, you are not respecting life”

On the other hand, three Buddhist leaders, BR2, BR3 and BR4, approved the use of both surplus and research embryos. Their support for the use of surplus embryos in research is driven by the intention of the research. For instance, BR2 asked, “why discard something that can be used for a good cause”.

Similarly, BR3 agreed that using surplus embryos in research for good intentions is encouraged, as long as there is consent from the reproductive couple. BR4 reasoned that it is a wonderful thing to use those surplus embryos which are slated to waste, to save lives of people instead.

The three Buddhist leaders, BR2, BR3 and BR4, did not see any difference in moral connotation on the use of research embryos. For instance, BR2 said, “intentionally creating to help another being” is allowed. BR3 said it is allowed, given the good intention. Similarly, BR4 said there is no restriction from the religious point of view to create research embryos for stem cell research on the grounds that there is no life in a 5-day old embryo, and it is encouraged for the purpose of saving lives.

The Hindu leaders, however, tend to be more cautious in stating their standpoints and did not want the permissibility given by them to be regarded as a blanket approval. All the Hindu leaders generally agreed that the use of surplus embryos is encouraged for various reasons. HR1 was driven by the benefits and purpose of research, saying that it is better to put the surplus embryos to good use in researches instead of discarding them. Whilst HR2 cited Puranic stories, saying that donating for a good cause is encouraged, and so is the donation of surplus embryos for research. HR3 explained that using surplus embryos in research to help humanity is in line with the concept of Dhayai or compassion towards others. HR4 agreed to the use of surplus embryos to ‘avoid wastage’.
All the Hindu respondents, however opposed the use of research embryos in stem cell research. For instance, HR1 objected to the act of intentionally cultivating embryos for research because according to him, creating the embryo and then destroying it in the name of research prevents the opportunity for the soul to fuse into the body. This is viewed as against the will of nature. HR2 also did not support as he is skeptical about the intention of cultivating embryos solely for research. He questioned the need to create research embryos when the use of surplus embryos for ESCR is generally encouraged.

HR3 claims the act only denotes the greed of human beings. HR3 said, “They don’t have to become avaricious to create new ones. From Hindu point of view they are incurring bad Karma.”

HR4 concurred that creating embryos should be avoided to prevent acts of misuse.

The Catholic respondents did not frame their arguments according to the sources of embryo, as they had adopted a consistent standpoint against ESCR, regardless of whether it is surplus or research embryo. All the respondents argued that the Church is against ESCR. CR1 viewed the use of surplus and research embryos as ‘equally evil’. CR2 said there is no ‘lesser evil’ between the two options, and added that one cannot intentionally create life and then expose it to destruction. Respondent CR3 gave an outright “no” for ESCR. The respondents were not against stem cell research per se, but against ESCR because of the ‘destruction of human lives’. Hence, from the Catholic perspective, the argument that the use of surplus embryo is the ‘lesser evil’ is not defensible.

At this juncture, it is interesting to note that three out of the four Buddhist respondents did not see any moral difference between the use of surplus and research embryos, and they approved both. The Catholic respondents too did not see any moral
difference between the two embryo sources, but gave an outright disapproval to ESCR because according to them research on both is equally destructive. This is where we find one’s religious beliefs shape the decision-making process. Given the same argument, the Buddhists and the Catholics arrive at opposing standpoints. Meanwhile, the findings show that though the Hindu respondents were motivated for different moral reasoning, they only supported the use of surplus embryos in research. Since the Buddhist and Hindu respondents were aware that they were forwarding their standpoints representing their community, they did not want to appear dogmatic; however they also did not support scientific researches for the sake of advancement without taking careful consideration of the impact of the research on their value system.

The Islamic ruling in the form of *fatwa* has been incorporated in the Malaysian guidelines. The official Islamic position on ESCR is that it is allowed only if conducted on surplus embryos. The use of research embryos is prohibited. It is worthy to note that the *Malaysian Guidelines for Stem Cell Research and Therapy* (MOH, 2009b) has spelt out that the physician responsible for the infertility treatment and the investigator harvesting human embryonic stem (hES) cells should not be the same person, and that informed consent is necessary during the donation of blastocysts for ESCR.

Having viewed the perspectives of the religious leaders in Malaysia with regards to the use of surplus and research embryos, the next section presents the global views on the matter.

A study conducted at Chicago Fertility Centre showed that 73% respondents opined that the use of surplus embryos for stem cell research should be allowed (Jain & Missmer, 2008). Another study in Victoria, Australia reported that couples who opted to donate embryos for research were driven by the intention to help in the advancement of science and also did not want to waste the embryos (Hammarberg & Tinney, 2006). Hug (2008) studied the attitudes of IVF patients regarding donation of embryos for stem
cell research, and factors influencing the IVF couples to donate their surplus embryos for research. Accordingly, among the factors that motivate couples to donate surplus embryos for research are, ‘knowing the research purpose’, ‘couples are at the end of IVF treatment’, and ‘having non-viable embryos for reproductive treatment’ (Hug, 2008).

It is argued that the use of surplus embryos for research indeed gives proper respect to the embryos which is manifested by using them in research which allows their existence to have [positive] impact on the world, rather than just to discard them (Manninen, 2007, pp. 90, 98, 101). Manninen further added that respect for surplus embryos entails the ‘moral permissibility’ of using them for ESCR. In view of IVF practices that create thousands of surplus embryos which will be disposed, it is only respectful that these surplus embryos are used in potentially life-saving researches.

The value of a surplus embryo is ‘extrinsic’ rather than ‘intrinsic’, hence allays the objection for utilising the surplus embryos for stem cell research in light of the greater moral good in alleviating suffering of human beings (Gentry, n.d.)

The Ethics Committee for the American Society of Reproductive Medicine while holding to the view that an embryo is a potential human being worthy of respect, affirms that ESCR is ethically acceptable if it is likely to benefit human health provided the research is carried out within stipulated guidelines and consent obtained from donors (Braverman et al., 2009). It is therefore important for the researchers and scientists to reciprocate the value that donors invest in embryo donation through their work attributes (Dickens & Cook, 2007).

The United States National Bioethics Advisory Commission (NBAC, 1999) states that research which inevitably involves the destruction of surplus embryos ought to be allowed to develop cures for life-threatening or severely debilitating diseases. The report also states that there is a moral difference between creating embryos specifically
for research purpose and for the purpose of reproduction. The United States NBAC expressed that federal funding for the creation of embryos solely for research is not recommended (NBAC, 1999, p. 71). In reference to this, Macklin (2000) argues that the report relies on “ethical intuition” which motivates the distinction between the surplus and research embryos. Macklin further argued that if ESCR which involves destruction of human embryos can be justified, then the same reason can be used to justify the creation of embryos for research. Macklin highlighted that creation of research embryos can be permitted taking into account the considerations that human embryos lack moral status, and also for the benefit of research aimed at alleviating suffering of human being from diseases. Childress (2004) who also examined the United States NBAC report, concludes that due to the evolving nature of the field, it is too early to rule out ‘any particular source of stem cells’ or to adopt one source as the best.

In an orderly organised reasoning, Curzer (2004) attempted to counter the conservative positions against ESCR. Curzer argues that harvesting stem cells from surplus embryos which eventually will be discarded or what he termed as ‘doomed embryo’, should not be mistaken as a case of sacrifice. Harvesting stem cells from ‘slated-to-be-discarded embryos’ is not unethical because those embryos would have been discarded anyway. He also countered the position opposing to creating embryos solely for sake of harvesting stem cells for the reason that embryos have right to life, is counter-intuitive itself.

Steinbock (2000) cautioned that respect for human persons should not be confused with respect for embryos. Accordingly, Kant’s maxim which states human persons cannot be treated as means to their ends cannot be applied to human embryos as they ‘do not have ends of their own’. Steinbock also argued that there is no moral difference between research that uses surplus embryos and embryos explicitly created.
for that purpose. She concluded that the value of research (aimed at providing treatments and saving lives) is what determines it is in alignment with the principle of respect for embryos, and not the source of the embryos.

The arguments supporting the idea that embryos should be treated with respect derives from the principle of human dignity (Bortolotti & Harris, 2005). It is in line with Kant’s maxim that human life should never be treated as means. Therefore, the line of thinking inspired by the Kant’s formulation is that human embryos cannot be treated as means. However, limitation exists to Kant’s idea on the notion of ‘instrumentalisation’ as a violation of human dignity, because it cannot be applied in all contexts of life [which includes research on embryos]. Thus, Bortolotti and Harris concluded by stating that the objections against research on human embryos on the grounds of violation of human dignity are unconvincing as the argument relying on dignity (an attribute of human life) - is ‘arbitrary’.

The arguments often put forth against creating research embryos are: ‘instrumentalisation of human life’ and ‘violation of human dignity’ (Devolder, 2005). In view of that, Devolder (2005) argued that the ‘discarded-created-distinction\textsuperscript{20}(d-c-d) which allows research on surplus embryos but not on research embryos, is an inconsistent viewpoint and it is intuitive since the defenders of d-c-d grant a relative moral status to human embryo. Devolder concluded that approach to ESCR which accepts the use of research embryos is ‘compatible with the feelings, attitudes and values’ of the defenders of d-c-d, to allow ESCR to develop treatments for the well-being of human.

\textsuperscript{20}The ‘discarded-created distinction’ has been forwarded stating that there is a moral difference between doing research on surplus embryos originally created for reproduction purpose, with the research embryos created with the intention of only using them for research (Parens, 2001).
Table 6.2: The standpoints and recommendations of religious leaders with regards to attaining consensus for ESCR in Malaysia

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<tr>
<th>Respondent</th>
<th>Data extract (interview excerpts)</th>
<th>Standpoint for general consensus</th>
<th>Recommendation</th>
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<tr>
<td>BR1</td>
<td>...you don’t need a religious authority to indoctrinate the value in you. Well, it is good if it can lead towards a consensus. But, if you cannot come to a consensus, leave it. I believe, as time goes on, the knowledge and skills we get, then we will come closer and closer. All religious committees to come closer and closer, eventually can lead to a consensus.</td>
<td>Is not a matter of should and shouldn’t be allowed. Is a matter of advisable or not advisable. So, from Buddhist perspective, as long as you do your research without destroying life, you can go ahead. If your research destroys life or keeps harming on life, then it is not advisable. My advice is that they can still continue the research while searching for other means.</td>
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<td>BR2</td>
<td>Buddhists don’t react, we respond. We don’t challenge anyone’s belief. They go with their belief, we go with our understanding. But if someone is doing a good thing with our understanding, if we can support, we support. And I am so glad, that the Muslims have given permission for scientist to carry out their research on stem cells with the extra embryos.</td>
<td>You all can go ahead as long as it is for the benefit of humankind. And not hurting, or harming or exploiting but doing it for the good.</td>
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<tr>
<td>BR3</td>
<td>We have different values. So, I see that every religion has different values. Even those who agree will agree on different aspects. Like what you see in Buddhism. Even if they agree, the reasons for agreement are different. And if they disagree, the reasons for disagreement different. The consensus need not be on agreement. You can have consensus on disagreement. You agree to disagree. So, we can have consensus within the Buddhist community, and within Catholic community, so there’s a guideline.</td>
<td>If [ESCR] done with good reason, with compassionate reason, there’s no reason to object. The 5 precepts, with good intention, and good clinical practice, no reason to object.</td>
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Table 6.2, continued

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<th>Respondent</th>
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<tr>
<td>BR4</td>
<td>Of course, each and every religious belief and teachings based on their holy books. Nobody can say is wrong. You can speak in behalf of your belief and text books. Eventually right or wrong it will come depending on their belief. You can have general consensus, but you must come with open mind, you must able to accept what other people to say. Because you are based on own principle, it might contradict other beliefs and questions certain things.</td>
<td>ESCR and lab things, should keep on going day by day. Then only able to progress, give opportunity to develop. If you stop totally, no progress or future in that area.</td>
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<td>HR1</td>
<td>...as far as our concern, we don’t see any of the religions doing anything harm. It is their opinion or their proof of their doctrine, not doing any harm. Under that aspect, no conflict... consensus is a bit difficult, each one has own doctrine, but one thing can do is somehow or rather a basic consensus can be arrived, but I don’t think so it can be generalised. But as long as we believe any religion is for common good, which is also found in Hinduism, so under that aspect, certain consensus can be arrived.</td>
<td>ESCR permissible with restriction in certain aspects, where the guidelines from Hinduism have to follow like the Law of Dharma, Karma, and ahimsa. My recommendation is though that various scholars have various responses to this, overweigh the benefits and drawbacks and lead to more towards a consensus for the betterment of mankind and ESCR.</td>
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<td>HR2</td>
<td>Of course we have some common understanding in the religions, there may be one or two differences, we have some common values which can be shared among all races. So, if you talk about the value-systems, it is quite encouraging. that’s why consensus in the sense that we must take some commonalities in their own religions. Definitely to get consensus from everyone is difficult. But if we pick up the commonalities in all these major religion, if that is acceptable, this should be conducted.</td>
<td>If the matter is understood, I am very sure the Hindu community will support for the betterment of the society. So, overall, this should be supported/research and more studies should be undertaken... should encourage on this ESCR, for simple reason, intention of this ESCR- it is for the benefit of people. For the community, for the future generation, more advanced research should be done.</td>
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<td>Standpoint for general consensus</td>
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<td>HR3</td>
<td><em>We have to take into considerations all the religions. We have to respect and accept all religions. That's a good sign to delay the situation (decision). There's a balance. For us, the intention counted.</em></td>
<td><em>As I said earlier, the one going to waste, that part can be used for research. What people vouch for, to come to proper consensus. Take care of spiritual values and also saving humans.</em></td>
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| HR4        | *The value systems of all religions must be respected. We cannot go override anyone. Neither do we want them to override us.*  
*The general consensus will be become very wide because many will have different views. It will be wide in the sense that they will agree for a particular religion what they are allowed to do. I think it should be a national consensus but respecting the respective religions.* | *ESCR should carry on, but there's need for consultation.*  
*I think is high time Malaysian government look for alternatives, but before they do that they consult the rest. The scientists themselves must be involved in it. And medical research people must also be involved while the religious and ethnic groups also be invited for initial discussion.* |
| CR1        | *I cannot make moral judgments of other religions of ethical code. I can only make moral judgments of my ethical code. The reason behind this, every religion has their ethos. The real danger of making a cross-religious boundaries or a moral stand is that there will never be an end to it. We cannot say another tradition, their moral ethic code do not deserve the respect. All we can say this is what we believe.*  
*The danger of having such gathering, if they take the stand, or come to a consensus, are you saying that all different religions must compromise? Because the other approach on consensus - instead of a unity of faiths becomes a uniformity of views.* | *The stand of the church is always the same, not only in a particular country. Is universal. Is a NO, NO, NO to ESCR.*  
*I would advise them or recommend them to abandon the projects and do other Stem Cell Research, Adult Stem Cell Research.* |
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<td></td>
<td><strong>Standpoint for general consensus</strong></td>
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<tr>
<td>CR2</td>
<td><em>I am respectful of what they believe as much as I expect them to be respectful of what I believe. Most importantly, what is lacking is the Malaysian government has to regulate, make laws. I don’t think any religion or any of the main religions promote destruction of life. I think that is going to be a challenge to come into consensus. For me consensus means very simple - that Embryonic Stem Cell Research not to be allowed.</em></td>
</tr>
<tr>
<td>CR3</td>
<td><em>Finally, when it comes to conflict of values e.g. between right of embryos and right of scientific research for knowledge, some official acknowledged authority will have the last word. But there’s none, except for Catholic Church teaching</em></td>
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6.2 Challenges Arriving at a Consensus

In reference to Table 6.2, this section addresses the third and last objective of the study, which is to examine the fundamental arguments and standpoints of the Buddhist, Hindu and Catholic faiths pertaining to ESCR, with regards to obtaining a consensus in Malaysia. The arguments of the respondents are explored, followed by literature.

The moral status assigned to human embryo is based one’s understanding of when human life begins, and it is very much influenced by religious beliefs or worldviews binding every country, making it difficult to attain consensus (Isasi et al., 2004). In his paper “Is a consensus possible on stem cell research?”, Brock (2006) stated that the main obstacle to consensus is the nature of ESCR which involves the destruction of human embryos. Brock argued that this moral obstacle does not survive scrutiny, and offered his arguments in support of ESCR. However, he also acknowledged that the arguments broadening support for ESCR will not change those who hold onto their religious belief that the human embryo warrants full moral status. Therefore, one cannot expect a full consensus on this issue.

The varying ethical arguments on the status of human embryo and about conception of life, make it hardly possible for a consensus between religions (Frazzetto, 2004). The destruction of human embryos during research remains the primary concern of religious authorities with regards to ESCR.

In line with that, there are two ‘appropriate’ contributions that the religious communities can offer to the public debate on ESCR (Waters, 2003, p. 20-21). Firstly, religious communities need to play their role in the expansive public context in which debate on ESCR is waged. In the debate, the religious communities need to refine their moral resources taking into account the vision of public and offer alternatives which binds together the human communities. Secondly, religious communities need to
express the principal beliefs, convictions and their moral assessments on ESCR in a clear and forthright manner.

The United States NBAC (1999) report summarised the presentations of the religious scholars on their ethical reflection of their respective traditions on ESCR. NBAC noted broad areas of agreement as well as disagreement. It is not surprising that the panelists did not reach unanimity on aspects of ESCR.

Meanwhile, UNESCO IBC (2001, p. 13) recognises the need to debate the subject on ESCR at national level, and at appropriate regulatory levels, to enable expression of broad range of views, and wherever possible to allow a consensus on the limits of permissibility of ESCR, besides encouraging on-going process of education and dialogues in society.

With that caveat in mind, this last section explores the standpoints and recommendations of the religious leaders from the Buddhist, Hindu and Catholic traditions with regards to attaining a consensus on matters concerning ESCR in Malaysia.

Generally, all the respondents from the three religious backgrounds, forwarded the view that they respect each other’s faith and the provisions expressed by each faith pertaining to ESCR. However, they were of the view that obtaining a consensus concerning ESCR involving all the religious authorities is difficult as each religion has different value-systems.

For instance, HR1 agreed that every religion promotes good values and do not promote ‘harm’. However, he cautioned that it is not possible to come up with a general consensus as each faith has its own set of doctrines. Perhaps, a basic guideline outlining the values would help but it cannot be generalised, says HR1. He added that certain aspects can be identified on the grounds that every religion promotes ‘common good’.
In line with this, HR2 stressed that to get a consensus would be difficult as there are differences of viewpoints. He instead suggested picking up the commonalities and common values of all major religions which can be shared among all races to derive a guideline. If that is acceptable, then steps can be taken towards realising a consensus, said HR2.

To that point, HR4 asserted that value-systems of all religions must be respected and one should not override the other. HR4 also pointed out that the general consensus will be wide, to incorporate different viewpoints of what is allowed within every religion. As such, it would no longer be a general one, said HR4. He added that a national consensus needs to incorporate views respecting every religion.

The Catholic respondent, CR1 cautioned the danger of attempting a general consensus, as he sees that it would lead to a point of ‘compromise’ between the religious groups in order to come out with a guideline in black and white. He argued it would not be a ‘unity of faiths’, but rather a ‘uniformity of views’. He asserted that each of them can only make moral judgments based on their religious ethos and should not be on ‘cross-religious boundaries’. CR1 added that the respondents cannot evaluate the moral ethic code of another tradition, but they can only forward their recommendation based on their own teachings.

Meanwhile, Hindu respondent, HR3, expressed relief that the opposition from the Catholic community is a ‘good sign to delay’ any policies to ensure a check-and-balance until the issues revolving ESCR are explored thoroughly. She added that considerations should be given to all religious beliefs, and that the Hindus primarily count on good intentions.

Respondents CR2 and CR3 also said that it would be difficult to reach a consensus. CR2 acknowledged that each religious tradition promotes respect for life and disapproves destruction of lives. CR2 acknowledged that there is a challenge to
come to a consensus, as he (representing the institution) is respectful of what others believe as much as he expects other religious communities to be respectful of what he believes. He also expressed concern that Malaysia lacks regulation and laws on ESCR. However, CR2 stressed that a consensus, to him, would simply mean prohibiting ESCR.

Meanwhile, CR3 stressed that when it comes to conflict of values between the right of embryos and freedom of scientific research, there is no other option other than to disallow ESCR.

Diverse views were observed within Buddhism and Hinduism. BR3 cautioned that even those who agree will have ‘different reasons for agreement’ and those who do not agree will also have ‘different reasons for disagreement’. He suggested that the consensus need not be on points of agreement but could be on point of disagreement. Or else, BR3 said that each religious tradition could come out with its own guideline, which is within the Buddhist community, Catholic community and so forth.

Similarly, BR2 stressed that in line with Buddhists teaching not to react but to respond to changes, BR2 said that they do not challenge anyone’s belief, but rather go with their own beliefs and understanding and give support where it is possible. BR2 also welcomed the ruling by the Islamic community which permits the use of surplus embryos for research, and she sees it as a good start.

BR4 stressed that in order to come up with a general consensus, all stakeholders must gather with an open mind and be willing to accept the views of others. He said that one can only speak on behalf of one’s belief and understanding of sacred texts. This is definitely a long-term goal, since pre-conceived notions of the religious authorities would hamper a fruitful deliberation on policies. Thus, according to BR4, it seems like the only way to go is to first accept the differences within and between every faith in a pluralistic society.
Meanwhile, according to BR1, one does not need a religious authority to indoctrinate the values in a person, but it comes with practicing the fundamental beliefs. With progressing time, knowledge and skills, he hopes that the religious communities will then come closer towards attaining a consensus.

Besides making known their standpoints for a consensus regarding ESCR, the religious leaders also gave their recommendations. Three Buddhist respondents, BR2, BR3 and BR4, recommended that ESCR should be continued for the benefit and progress of mankind, as long as it is done with good intention, promotes non-harming principle, and for ‘compassionate’ reasons to improve the health of mankind, and obeys the five precepts in Buddhism.

Similarly, Hindu respondent, HR1 recommended that as long as ESCR is carried out in line with the Law of Karma, Dharma and ahimsa, it is encouraged for the betterment of society. He urged the religious leaders to weigh in the benefits and drawbacks before attempting for a consensus on ESCR for the betterment of mankind.

HR2 also expressed hope that the Hindu community will support and encourage ESCR which is aimed at benefiting mankind, if the subject matter is well understood by the religious communities. Thus, he encourages more studies to be undertaken on this issue.

HR3 did not dissuade from her standpoint, that is surplus embryos can be used for research, but more importantly she stressed that ‘spiritual values’ need not be abandoned in pursuing ESCR.

Finally, HR4 reflected the need to look for alternatives, besides getting the scientists and medical representatives to sit together with the religious authorities to discuss about ESCR. According to HR4, ESCR can be carried on, but first, the Malaysian government needs to consult the concerned parties.
A Buddhist leader, BR1, who emphasised sanctity of life, said that ESCR is not a matter of whether it ‘should or should not be allowed’, but whether it is ‘advisable’ or not. His recommendation is that if the research destroys lives or harm lives, then the research is not advisable and it is time to ‘search for other means’.

In a unanimous stand which is not surprising, all three Catholic priests, expressed their full support and recommendation towards exploring alternatives like Adult Stem (AS) cell research and called for a stop to all activities that result in destruction of lives. The Catholics pointed out that Adult Stem (AS) cell research is the way out, and an alternative to ESCR.

Apart from being ethically less controversial, AS cell research has its own limitations and advantages (Ruiz-Canela, 2002) - which this study does not deal with. There is a line of thinking that both ESCR and AS cell research are important and neither should be restricted (Ruiz-Canela, 2002). The scientific community is of the view that both ESCR and AS cell research should progress until the promise of each becomes clearer (Brock, 2006). Similarly, Miller (2008, p. 187) believes that we should proceed with ESCR while continuing research with other non-embryonic stem cells.

Meanwhile, Copland (2004) is concerned about the influence that the Catholic Church has on public policies, especially doctrinal position which seems to be at odds with the progress of Science itself. Copland wrote that Roman Catholic Church has been slow in accepting progress of Science due to its religious fervor to maintain its doctrinal position even when it has been empirically unsound, and that the Catholic Church is effectively lobbying in full force in many countries against experimentation on early embryos. Likewise, Oakley (2002) wrote that the Roman Catholic Church in Australia has lobbied politicians to prohibit ESCR on the grounds that it violates sanctity of human life. However, according to Oakley (2002), a report by the Australian parliamentary standing committee recommended that ESCR be allowed
under certain conditions. Oakley, therefore, argues that it is important to acknowledge
the informed views of the larger community when it comes to formulating policies and
to resist lobbying by a single religious group.

In Malaysia, however, the respondents from the Buddhist and Hindu faiths are
not fettered by the standpoint of the Catholics, but they instead view it as a check and
balance for issues concerning ESCR.

Meanwhile, Walters (2004) attempted to find tidy correlations between the
various perspectives on ESCR, but found that it was ‘fraught with difficulty’. Accordingly, the lack of authoritative voice resulted in a wide range of views. The
difficulty lies in interpreting ancient sacred texts by religious leaders and scholars in
light of today’s medical discovery such as ESCR. Dissenting views can also be found
within Catholic faith where liberal opinions disagree to the official church teaching. In
addition, attempts to establish views for the ‘Eastern’ religions like Buddhism and
Hinduism, according to Walters (2004, pp. 30-31), have led the representatives to relate
the issue on ESCR to earlier teachings in an ‘analogous’ manner, which eventually has
a ‘decisive influence’ on the representative’s moral judgments.

At this juncture, it is worthwhile pointing out that for an Islamic community,
ethical decisions and moral reasoning on biomedical innovations can be referred to the
fatwa committee at state, national or international level. The concept of *ijtihad* offers
avenue for reasoning and for continuing dialogue between scholars and researchers to
develop a consensus (Aksoy et al., 2007).

The diverse views recorded in this study indicate a lack of consensus on matters
concerning ESCR. The lack of consensus ‘increases the complexity’ of ESCR (Jafari et
al., 2008, p. 82). In other words, lack of consensus makes it difficult to formulate
public policies. Nevertheless, public policies should respect the diverse fundamental
believes in a pluralistic society and not to be ‘held hostage to any single view of embryonic life’ (Childress, 2004, p.105).

The voices of religions are influential in shaping a country’s policy, and ESCR is no exception. In a pluralistic society, a clash of ethical frameworks emanates from religious groups. There is limited space for common grounds and a comprehensive social consensus is unlikely to reveal as efforts to develop public policies are challenged from different ‘interlocutors’ (Brouillet & Turner, 2005, pp. 60-61).

The neighbouring country, Singapore, has taken a lead among Asian countries to allow ESCR to be carried out on surplus embryos, and on research embryos when there is a strong scientific merit. This position was adopted after collecting the viewpoints of the religious authorities and various stakeholders on their moral acceptability on ESCR, which was then published as a report (Singapore BAC, 2002). The Singapore BAC submitted its recommendations on ESCR assuring that it is not dominated by a single view.

In Malaysia, thus far, the nation has adopted guidelines based on the national fatwa ruling that only allows the use of surplus embryos in stem cell research. It is hoped that the findings of this study offering the perspectives of the Buddhists, Hindus and Catholics will shed more light in matters concerning the permissibility of ESCR in Malaysia.

The good news is that ongoing debates about the permissibility of ESCR reflect the concerns expressed by various groups, including the different religious traditions. On the other hand, ethical dilemmas continue to plague scientific advancements such as ESCR. Thus, what is needed right now is open discussion on the matter without fear or prejudice.

On the whole, there is no intrinsic unanimity in the justifications offered by each religious group except for the Catholics. At present, there is no official institutional
response on ESCR within the Buddhist and Hindu communities. However, the Buddhist and Hindu leaders embrace the absence of a central authority and encourage individuals to seek personal understanding from the teachings.

Although there is no unanimity in the stand by the respondents, there seems to be a growing concern pertaining to the practice of ESCR in Malaysia, and has initiated discussions in public forums. Though there is no widespread consensus on ESCR among the religious leaders, there seems to be some points of agreement on certain aspects of ESCR. All respondents agree that embryonic life must generally be respected, but differ in their exegesis regarding the moral status of a 5-day old embryo when used in stem cell research. They also have stressed the need to regulate policies concerning ESCR in Malaysia.
CHAPTER 7: CONCLUSION

This final chapter draws together the key findings of this study to provide a comprehensive insight on the ethical perceptions of the Buddhist, Hindu and Catholic representatives with regards to ESCR in Malaysia.

7.1 Relating Findings to Objectives of the Study

The three objectives determined at the beginning of this study have been achieved. Firstly, the ethical considerations pertaining to ESCR in Malaysia were explored from the perspectives of the Buddhist, Hindu and Catholic representatives. The findings identified three themes, namely (a) sanctity of life, (b) ‘do no harm’ and (c) intention of the research, representing the ethical concerns of the religious leaders. Generally, the notion of sanctity of life was deliberated by Buddhist, Hindu and Catholic respondents. It is also regarded as an important ethical value in Islam. The second theme, ‘do no harm’ was also deliberated by Buddhist, Hindu and Catholic respondents respectively. The third theme, intention of the research, was, however, projected as a significant factor among the Buddhists and Hindus only. The last two themes, especially the notion of intention of the research, represent the emerging and rising concerns of religious community in today’s moral debate on ESCR.

Next, the ethical viewpoints of the Buddhist, Hindu and Catholic representatives with regard to the use of both surplus and research embryos in ESCR were investigated. The findings indicate that generally all Buddhist leaders approve ESCR, except for one leader who disapproved the use of research embryos. The Hindu representatives approve ESCR but limited it to the use of surplus embryos. All Catholic respondents gave outright disapproval to ESCR.
Finally, the standpoints of the Buddhist, Hindu and Catholic representatives with regards to obtaining consensus in Malaysia were examined. On the whole, there is no widespread consensus among the religious leaders. The Buddhist and Hindu representatives taking into account the various value-systems in Malaysia, agreed that a consensus is difficult to be achieved, but they believe that consultation and prolonged discussion over time among the different faiths will bring them closer towards achieving a unifying stand. The Catholic respondents, whilst respecting the various value-systems, firmly stressed that a consensus for them would mean none other than a rejection of ESCR.

The varying ethical perceptions gathered in this study represent the fabric of a multi-religious society in Malaysia.

The ethical concerns of the Catholics are in accordance with the standpoint of the Vatican, the official teaching authority. The resources and declarations from Vatican concerning ESCR, include the ‘Declaration on the Production and the Scientific and Therapeutic Use of Human Embryonic Stem Cells’ by Pontifical Academy for Life (2000), ‘Congregation for the Doctrine of Faith: Instruction Dignitas Personae on Certain Bioethical Questions’ endorsed by [Pope] Benedict (2008), and address of the Holy Father at the 18th International Congress of the Transplantation Society by [Pope] John Paul II (2000). All these documents released by the Vatican, stress that the human embryo, from the moment of conception is a well-defined identity, and therefore manipulation and destruction of human embryos in research is unacceptable even if the goal is to find cures for diseases.

Meanwhile, the ethical concerns of the Buddhist respondents in this study differ from the paper by the renowned Buddhist scholar, Keown (2004). In the paper, Keown pointed out that Buddhist opposes research on human embryos that entails destruction
of human life. Meanwhile, Promta’s (2004) views which give a fresh interpretation of Buddhist personal and social ethics are also reflected in this study.

The findings also concur with Walters (2004) and Foong (2011). Walters (2004) noted the pivotal role of centralised authority in Catholicism, which is also evident in the stance of the respondents in this study. The absence of a single authoritative voice in Buddhism and Hinduism has led to varying interpretation of religious texts giving rise to a wide range of viewpoints (Walters, 2004; Foong, 2011).

As there are not much writings on the Buddhist standpoint on ESCR, the findings of this study has provided new insights on the subject matter. Generally, the Buddhist respondents encourage ESCR if it is in accordance with the principle of ahimsa, and if the intention of the research generates good karma. This offers fresh insights in the ethics discussion, and needs to be explored further.

Similarly, there are limited resources on the position taken by Hindus on ESCR, other than Tyagananda (2002), who stated that destruction of life is bad karma unless it is for the greater good of humanity. Likewise, the Hindu respondents in this study cautiously supported the use of surplus embryos in ESCR, as long as it is in accordance with ahimsa, and if the intention of the research is in line with law of karma. Once again, this has offered new perspectives and new dimension on the issue, which needs to be explored further in other multi-religious settings.

As the Catholic respondents conceded in not having a different opinion from the Vatican, it is the responses of the Buddhist and Hindu representatives which offer a new perspective on the subject matter.
7.2 Incorporating Findings into Conceptual Framework

This study begins with a conceptual framework in Chapter 2. The findings of this study are now incorporated into the Conceptual Framework to give a comprehensive insight.

![Diagram of Conceptual Framework](image)

**Legend:**
- B: Buddhist
- H: Hindu
- C: Catholic

*Figure 7.1: Ethics Framework for ESCR*
Figure 7.1 shows that the findings of this study are incorporated into the existing conceptual framework proposed in Section 2.4 at the beginning of the study.

Figure 7.1 only presents the major ethical concerns pertaining to ethics of ESCR. Thus, the motivational factors and values related to every theme are not illustrated in this framework.

The left hand side of the framework illustrates the major concerns of embryo research based on existing literature, that is, moral status of embryo. Besides that, the Islamic perspectives on ethics of ESCR based on the two principles, which is ‘research is a knowledge-seeking endeavour’, and ‘sanctity of life’, are explored in this study. Both these principles served as guideline in steering the direction of research, and to examine whether the Buddhist, Hindu and Catholic leaders share similar concerns or whether they have other overriding concerns.

On the right hand side of the framework, the three shaded boxes represent the three themes identified from this study with the respective religious leaders, namely, ‘sanctity of life’, ‘do no harm’, and ‘intention of the research’. The latter two themes emerged from the findings, and particularly, the last theme, intention of the research, is an emerging theme, offering new insights in the ethical discussion.

The three themes reflect the ethical concerns of the Buddhist, Hindu and Catholic leaders. From the connecting arrows, it can be concluded that the Buddhist and Hindu respondents deliberated on all three themes, whereas, the Catholic respondents only deliberated on the former two themes. Thus, the Buddhists and Hindus focus on the good intentions of the research, which sets them apart from the Catholic respondents.

This framework, on the whole, provides a comprehensive picture on the ethical concerns of ESCR in the context of Malaysia, a multi-religious country. It is recommended that this ethics framework is used as baseline in future ethical debates.
7.3 Relating Findings to Research Questions

The findings of this study are presented as responses to the research questions posed in Section 1.5

(a) What are the main values and moral principles that guide the decision-making process pertaining to ethics of ESCR in Malaysia?

The Buddhists and Hindus are guided by the principle of *ahimsa* and Law of *Karma*. When deliberating about the ethics of ESCR, the Buddhists and Hindus apply the principle of *ahimsa*, emphasising non-violence, and prohibit acts that inflict harm on living entity. Depending on the moral interpretation, the religious leaders either argue that ESCR does not violate the principle of *ahimsa*, or that it does, reflecting upon religious notion of ensoulment and early consciousness of embryo. Besides *ahimsa*, the Buddhists and Hindus also emphasised that if the intention of the research is in accordance with Law of *Karma* which benefit humankind, then it generates good karma and is considered noble. Thus, ESCR is encouraged.

On the other hand, the Catholics emphasised the principle of inviolability of embryonic life. They stressed the need to respect life at all stages, including early embryos. This is because the Catholics believe that the embryo is a living soul from the moment of conception which warrants the respect and protection accorded to a human being.
(b) What are the common similarities and differences within these religious perspectives (Buddhist, Hindu and Catholic)?

This study has demonstrated that the common element among these religious beliefs is that embryonic life needs to be respected. It is ultimately the moral discernment of the representatives based on various religious aspects that led them to either encourage ESCR with conditions, or disapprove ESCR. Besides that, the concept of donation (Dana) is regarded by the Buddhists and Hindus as an ethical guiding principle, when arguing for the use of surplus embryos in ESCR.

This study noted a few significant differences among these religions. Firstly, on the notion of ensoulment. Catholics believe that the moment the sperm and egg fuses, the soul is breathed in, creating a well-defined identity from day one of fertilisation, marking presence of life; the embryo becomes a living soul. On the contrary, in line with the sacred texts, the Hindus generally believe that ensoulment occurs around 90 days of fertilisation. Therefore, the Hindus believe that a 5-day old embryo is in its vegetative state, and has not developed a structured body for the soul to dwell. So, in a 5-day old embryo, the soul is not present to mark the phase of ‘actual life’. It is for this reason that the embryo is allowed to be used in research. Meanwhile, the Buddhists do not believe in the concept of an eternal soul. They counter the concept of soul with doctrine of Annata, which emphasises the concept of non-self. Accordingly, the life energy equated as consciousness is not present in a 5-day old embryo, therefore eliminating moral qualms on ESCR.

The second difference lies in the fact that intention of the research is considered as a crucial point among Buddhists and Hindus, setting them apart from the Catholics. The Catholics disapprove ESCR regardless of its potential to bring cures for diseases. To the Buddhists and Hindus, the intention behind research is regarded as a higher
purpose, whereas the Catholics refuse to consider the potentials of the research and only emphasise the fact that research brings upon destruction to embryonic life.

The third difference observed is related to the moral interpretation exclusive to particular religious beliefs. The Buddhists generally do not see any moral difference between the use of surplus and research embryos in ESCR, giving permissibility to both. The Catholics also do not see any moral difference between both the embryo sources, but gave an outright disapproval to ESCR because according to them research on both are equally destructive. For the same argument, the Buddhists and Catholics arrived at opposing standpoint. Here, we can see that one’s religious beliefs leads to one’s decision-making.

Last but not least, the centralised authority in Catholicism led the respondents to give a consistent viewpoint, as compared to the absence of one in Buddhism and Hinduism leading to diverse viewpoints.

(c) What is the position taken by each religion? (Islam, Buddhist, Hindu, and Catholic faiths) on ESCR in Malaysia?

In Malaysia, the official position of Islam on matters regarding ESCR is based on the national fatwa. Accordingly, the use of surplus embryos in research is allowed with the consent of the couple, but creation of research embryos solely for research purposes is prohibited.

Other than the sole Buddhist respondent who disapproved the use of research embryos in ESCR, the rest of the respondents generally allow the use of both surplus and research embryos in ESCR, as they do not see any moral difference between both
the sources. In addition, the Buddhists encourage ESCR as they are motivated by the moral desire to alleviate suffering of the people.

The Hindus cautiously support ESCR, but limited it to the use of surplus embryos. They emphasised that donating surplus resources to the needy is in line with the religious concept of donation (Dana) and compassionate act (Dhayai). Thus, donating surplus embryos for research which benefits the society at large is viewed in the same vein.

The Catholics gave outright disapproval to ESCR regardless of the embryo sources, because to them the end result is the same, which is destruction of life.

(d) What is the response of the religious leaders in recognising the value systems of various religions in Malaysia with regards to obtaining a consensus on ESCR?

Generally, all the respondents expressed their respect to the various value-systems and teachings of different faiths in Malaysia. However, given the varying value systems, the respondents cautioned that a general consensus on ESCR involving all the religious groups is difficult to achieve at this point of time. The reason forwarded for the difficulty is the fear of overriding or having to compromise one’s doctrinal values to achieve uniformity of views.

However, the respondents generally proposed that inter-faith discussion would lead to the emergence of common values and common grounds to formulate a guideline. Nevertheless, this is fraught with difficulty, as to the Catholic leaders, the only option would be to disallow ESCR. Perhaps, for the time being every religious group should come up with a general guideline, and with evolving knowledge and time, they may be able to get closer towards achieving a common guideline for all.
(e) **What are the possible recommendations that may be gathered from these religions pertaining to ESCR in Malaysia?**

Generally, the Buddhists and Hindus agree that ESCR should be pursued while we also look for other viable alternatives. They also recommended that ESCR should be continued for the progress of mankind as long as it is in accordance with the principle of ahimsa, law of *Karma* and *Dharma* (ethical codes). Respondents expressed hope that many more will support ESCR if the public and particularly the inter-faith groups are well-informed of the related issues through consultations and dialogues.

Meanwhile, the Catholic respondents cannot be dissuaded from objecting to ESCR, as they have recommended that we start exploring non-embryonic stem cells such as adult stem cells as alternatives. They stressed that they are not against stem cell research or scientific progress, but the nature of ESCR which conducts research on human embryos.
7.4 **Wider Implications and Concluding Remarks**

The National Biotechnology Policy (NBP) was launched in 2005 envisioning the biotechnology sector as one of the key economic drivers of the nation. Malaysia is now in the second phase of NBP. Malaysia is also one of the leading healthcare providers in Asia, concentrating on stem cell procedures. As such, stem cell research has become increasingly important to be pursued, and this would mean including ESCR as one form of research.

As compared to the other forms of stem cell research like adult stem (AS) cell research, or induced pluripotent stem (iPS) cells, it is ESCR which raises ethical controversies. A conflict of interest or ethical dilemma develops in religious deliberations when attempting to balance the sanctity of human life with the need to alleviate human suffering.

‘Science without humanity’ is a deadly sin according to Mahatma Gandhi. In a multi-religious country like Malaysia, constructive discussion between the realms of religion and Science among religious leaders of various faiths is crucial. Improving the health of the people through therapeutic research without compromising respect for life, needs to be addressed.

This study, being the first of its kind, has gathered the multi-faith insights on ethics of ESCR in Malaysia with regards to the use of surplus and research embryos. The findings of this study need to be communicated to the next level, which includes engagement with public and various stakeholders.

It is important that the religious leaders and representatives participate in open forums and inter-faith discussions to fully explore the issues pertaining to ESCR in the local context and propose recommendations to the government prior to the formulation of policies and framework.
It is also recommended that the findings of this study be discussed in inter-faith forums alongside with scientists and medical practitioners to encourage awareness of the principles that lie behind each faith which either prohibits or encourages ESCR. Inclusive inter-faith dialogues representing the non-Muslim population such as Malaysian Consultative Council of Buddhism, Christianity, Hinduism, Sikhism and Taoism (MCCBCHST), together with the Department of Islamic Development (JAKIM) would play a significant role in promoting healthy discussions that are unique, well-balanced and that takes into account the diversity of beliefs of all Malaysians.

A constructive discussion between the realms of Science and religion among leaders of various faiths in Malaysia is important to facilitate policies in research and development in biomedical sciences. While the goal of ESCR is to relieve human suffering, the sacredness of human life is also held highly by religious communities, and that needs to be addressed in future ethical discourses. This study has illustrated the multi-faith character of ethics in Malaysian context, which the global bioethics community may want to explore further.

### 7.5 Suggestions for Future Research

This study explores the ethical perception of Buddhist, Hindu and Catholic representatives in Malaysia, with regards to the use of surplus and research embryos in ESCR.

For a broader spectrum, further research could be undertaken in the following areas to facilitate formulation of policies in Malaysia:

1. A study on the legal issues associated to ESCR
2. The perspectives of other religious groups which are not covered in this study, including Sikhism, Taoism and various denominations of Christianity

3. A survey on the lay knowledge and attitude towards ESCR

4. The perspectives of scientists actively involved in ESCR

5. Other Islamic principles deemed important in ethics of ESCR