A child is the greatest gift from the God after marriage. Giving the best to him is a must. Parents are always selective in giving education. That education can be started since they are still in the womb. It is named prenatal education. Although a fetus or baby is still in the womb, his hearing and understanding develop well because of stimulus from outside. Giving education is not just for intelectual, but also for mental and spiritual. A mother should know and give the best thing for her baby. Quran is the basic thing for moslems’ life. A pregnant woman who listens, reads, or recites Quran feels comfort. Her baby will feel the same because mother’s condition influences baby’s condition. Various researchers showed that pregnant women who read, recite or listen to the Quran can give good impact to the fetus or baby in the womb. It does not just influence the baby’s Intelligence Quotient (IQ) and Emotional Quotient (EQ), but it also gives Spiritual Quotient (SQ) to the baby.
A. Introduction

A child is very meaningful for parents. After getting married, all couples in this world have same hope. That is having baby. They hope that their lives will be more complete if there is a baby. By having baby, they feel more alive. For that reason, various things prepared and done by them to make their child comfort and grow to be the best child.

For having good child, the parents should have big struggle. It is not just preparing his physical needs, but also his spiritual or psychological needs. Moreover, education is given not only when they grow up as a child, but it is also done when he is still in the womb. For fulfilling that needs, the parents should start it earlier. It means that prenatal education for baby in the womb should be done because it is important for the baby’s growth.

Many people ask whether they can teach the baby in the womb whereas they can not listen anything. Mann (2013) said that babies began to absorb language when they are inside the womb during the last 10 weeks of pregnancy which is earlier than previously held. It means, a baby can develop his hearing and understanding. In the womb, he can hear the sound or voice outside the womb, whether it is his mother’s voice, people around that mother, music or other voice sources.

For moslem, Quran is the main basic for teaching and studying. It teaches all things for this life. Here, the writer is so curious about the impact of Quran for the baby if it is taught before birth. For that reason, relating pranatal education and child’s growth, the writer wants to discuss the impact of prenatal education through stimulating Quran’s reading on child’s growth.

B. Baby’s Development in the Womb

The development of baby in the womb is a wonderful process. The writer has compiled a month-by-month timescale of pregnancy. But we should keep in mind that different pregnancies develop at different rates. In this description, the writer has adopted the method which doctors use. For example, ‘week 8’
means that it is counted from the first day of the last period — the baby will usually only be 6 weeks old at this point.

C. How Doctors Date the Pregnancy

The average pregnancy lasts for 38 weeks from the date which people conceive. This is called conception. However, doctors usually date the pregnancy from the first day of a woman’s last menstrual period — that is the day your last period started. By using this method, a pregnancy is said to last 40 weeks (280 days).

The due date is usually calculated as 40 weeks from the first day of a mother’s last period. However, fertilisation of the egg by sperm happens a day or 2 after ovulation, which occurs in the middle of a 28-day cycle, and then it is a couple of days before the fertilised egg implants in the uterus, so for the first 2 weeks of the 40-week ‘pregnancy’, a mother is not actually pregnant at all.

1. First month

After the egg has been fertilised by the sperm, it starts to divide into more cells. This happens all the time. It is carried along the fallopian tube to the uterus. By the time, it reaches the uterus. The fertilised egg has become a cluster of cells which float in the uterine cavity until it embeds in the wall of the uterus. This implantation in the wall of the uterus is when conception is complete. This is roughly 4 weeks after first day of the last menstrual period if a mother has a 28-day cycle.

2. Second month

At 5 weeks, the embryo is the size of a grain of rice (about 2 mm long) and would be visible to the naked eye. It has the beginnings of a brain with 2 lobes and its spinal cord is starting to form.

At 6 weeks of ‘pregnancy’ (3-4 weeks after fertilisation), the embryo has a head with simple eyes and ears. Its heart has 2 chambers and is beating. Small buds are present that will form arms and legs later. The beginnings of the spine can be seen and the lower part of the body looks like a tail.

At 7 weeks, the limb buds have grown into arms and legs.
Nostrils can be seen on the embryo’s face. The heart now has 4 chambers.

At 8 weeks, the eyes and ears are growing, and the baby is about 2 cm long from crown to rump. The head is out of proportion with the body and the face is developing. The brain and the blood vessels in the head can be seen through the thin skin. The bones in the arms and legs start to harden and elbows and knees become apparent. Fingers and toes can also be seen.

3. Third month

What is known as the embryonic period finishes at the end of week 8 and the fetal period begins. This period sees rapid growth of the fetus, and the further development of the organs and tissues that were formed in the embryonic period.

At week 9, the head is almost half the crown to rump length of the fetus. Then the body grows substantially in length until by week 12, the head is more in proportion. By the time, someone is 12 weeks’ ‘pregnant’ and the baby is just over 5 cm long from crown to rump.

Its body is fully formed, including ears, toes and fingers complete with fingernails. The external genitals appeared in week 9, and now, by week 12, have fully differentiated into male or female genitals. By week 12, the eyes have moved to the front of the face and the eyelids remain closed together.

4. Fourth month

The baby may suck its thumb now. By 14 weeks, the baby will be about 9-10 cm long. Its body is now covered with a layer of fine hair called lanugo. By 16 weeks, its face is becoming more human in appearance, although the chin is small and the mouth is quite wide. Between 16 and 24 weeks, a mother should feel that the baby move for the first time — it may at first feel like butterflies.

5. Fifth month

The rapid growth that the baby has been experiencing now begins to slow a little. By week 20, the baby measures about 18 centimetres from crown to rump and is half as long as he will be when born. The legs are now in proportion with the body and the
fingernails are well developed. Faint eyebrows are visible. At this stage, a mother will feel the baby moving about a lot, often when she lies down.

6. Sixth month

By 24 weeks, the baby’s organs are fully formed. The baby now has the face of a newborn baby, although the eyes are rather prominent because fat pads are yet to build up in the baby’s cheeks. The eyelids are fused until weeks 25 to 26 when they open.

The skin is wrinkled, red and thin with little underlying fat. The skin is covered with a waxy substance called vernix, which protects it while it is floating in the uterus. The body is well muscled, but still thin. The baby has become better proportioned, with the size of the body catching up with the size of the head. His hearing is also well developed by this stage and he will respond to noise.

7. Seventh month

By 28 weeks, lanugo hair has almost gone and hair is present on the head. Fat is being deposited under the skin.

8. Eighth month

The baby is becoming plumper. By 30 weeks, the toenails are present and by 32 weeks, the fingernails have reached the ends of the fingers. The baby’s eyes will be open when the baby’s awake.

By about 32 weeks, the baby will have settled into a downward position as there is no longer enough room left in the womb for it to move about freely. A mother will feel occasional vigorous jabs of the baby’s arms and legs. If the baby is a boy, his testes will migrate down into the scrotum in the 8th month.

9. Ninth month

Sometime between 36 and 40 weeks, the baby’s head will engage — that is, the head will be lying just on top of a mother’s cervix. By 40 weeks, the baby should be plump and healthy. The lanugo hair that had covered him has now mostly disappeared, although some hair may remain low on the forehead, in front of the ears and down the centre of the back. The toenails should have reached the tips of the toes.
10. Full term

By full-term, our baby should weigh about 2.7 to 3.5 kg, although full-term babies can weigh anything from 2.5 to 5 kg, and measure 35 to 38 centimetres from crown to rump and 44 to 55 cm from the baby’s head to its toes. These are just average figures, though, and there can be wide variation in the measurements. So now, 38 weeks after conception, our baby has all its organs and body systems ready for the big moment when it is born into the world.

D. Human Development in the Quran

Dr. Maurice Bucaille (2012) said that the Quranic description of certain stages in the development of embryo corresponds exactly to what we today know about it, and the Quran does not contain a single statement that is open to criticism from modern science.

The act of clinging is described five different times in the Quran, of which two are shown below:

“Read, in the name of your Lord and Cherisher, who fashioned; who fashioned man from something which clings.” (Quran, Al-Alaq 96:1-2)

“Was (man) not a small quantity of sperm which has been poured out? Then did he become something which clings; then God fashioned him in due proportion.” (Quran, Al-Qiyamah 75:37-38)

“The Quran informs us that the embryo then passes through the stage of ‘chewed flesh’, then osseous tissue appears and is clad in flesh.”

“...We fashioned...into something which clings...into a lump of flesh in proportion and out of proportion...” (Quran, Al-Hajj 22:5)

“We fashioned the thing which clings into a chewed lump of flesh and We fashioned the chewed flesh into bones, and We clothed the bones with intact flesh...” (Quran, Al-Mu’minun 23:14)

E. Psychology of Sound: How Babies Develop Hearing and Understanding

The first year of a baby’s life is the most important in terms
of development, and it’s a fascinating time to learn about when considering the psychological implications of how our little ones understand and interpret the world around them. Hearing is the second of the five senses that a child will develop, and one of the most important for communication. In this point, the writer will discuss about how a baby’s hearing develops.

The hearing organs start forming when a foetus is just three weeks old, starting at the inner ear and slowly building up to the ear canal, until eventually you’ll be able to see the outer ears on an ultrasound image. This happens quite quickly - it’s thought the auditory system becomes functional at around 25 weeks - so there’s plenty of time for them to get used to the many noises detectable within the womb.

Hearing development also improves as the brain becomes more complex - any sounds the foetus hears will be created as new memory circuits, creating meaningful associations with each. A foetus can detect different moods and emotional responses to speech and music at around 36 weeks old, and will soon learn to distinguish between happiness, sadness, anxiety and peace. Here are some theories from Amplifon (2015):

F. What a Fetus Hears

By inserting a small hydrophone into the uterus of a pregnant woman, researchers have found that even in calm, quiet environments the background noise in the womb is similar to that of a house or apartment. Common sounds included whooshing noises as the blood moves through adjacent vessels, gurgling from the stomach, and of course the heartbeat of the mother. The foetus can also hear the mother’s speech, and will start tuning in to the voice, language and intonation - a feat that will have an impressive bonding effect between mother and baby once the child is born.

A number of studies have been carried out on foetuses to find out exactly how they interpret sound while in the safety of the womb. We can detect reactions in the third trimester by monitoring the heartbeat under different conditions. This allows us not only to
discover when the baby is agitated - for example by sudden noises - but also to find out what makes them most comfortable and relaxed. Tone is particularly important at this time; studies have found that foetuses respond to changes in pitch when music is playing, and are happier when they hear their mother speaking her everyday language rather than a foreign dialect with unfamiliar intonations.

G. Key Sound For Soothing and Calming

We can use our understanding of what fetus hear in the womb to make them more comfortable, with just a few short steps each night. This will not just relax the baby now, but will also create a set of bonding associations that will continue even after the birth, allowing to make a connection with our baby straight away. Here are some of the best things we can do to communicate with our bump:

Talk to them

While they will not be able to understand, it is the tone and the comforting sound of our voice that makes this a simple yet effective way to soothe our baby during the last few weeks of pregnancy.

Read to them

Studies have shown that fetus feel more relaxed when they are read the same book over and over again, indicating that memory is already relatively well-developed. Again, it is the tone rather than the content that counts - and our baby will have the same comforting association with the book of your choice even after birth. Do make sure we change it up occasionally though, to keep them engaged and give them plenty of new learning experiences while in utero.

Avoid placing headphones on the bump

Contrary to what the adult may have heard, headphones should never be placed on baby bump - each speaker contributes the same amount of sound, meaning that while we might wear them and hear 70db in each ear, our baby will hear 120-140db. Directing
sounds straight into this space can disrupt sleeping patterns and agitate our baby – it is always worth chatting to a doctor or maternity specialist, who might be able to give an effective way of sharing music with the child.

Hearing development

While our baby will already have well-functioning ears at birth, they’ll continue to develop for the first six months, and you might notice in that time that our baby’s preferences change. The reason for this is that they can hear a wider range of frequencies, and may be more susceptible to loud noises than they were before. The temporal lobe is also fully developing in this time, which is the part of the brain responsible for understanding sound, language and a whole host of other sensory stimuli - which is why you might find it a chore to get them to settle down in this time!

After around six months, our baby will have learned to detect where sounds are coming from, and within a year will be able to recognise and try to join in with favourite songs.

Our baby has a lot to learn in this first year - as well as the continued growth of many sensory organs, they’ll also be trying to work out how to derive meaning from the sensory input around them. This can sometimes result in a little anxiety, but babies are well-prepared for this kind of sensory stimuli in their formative years, and you shouldn’t worry unduly as they adapt to the world around them.

H. Prenatal Education

Childbirth educators have the opportunity to empower women by helping them to embrace the role of parenthood. Motherhood starts before conception. The ultimate of being proactive in health is to cultivate it from the very beginning. Stress can make or break the health of an unborn baby. For this reason, self-care is crucial for pregnant women, not only on the physical level. (Kluny: 32)

The busiest time in anyone’s life happens before birth. Not only our baby grow from the size of a blueberry to being a fully
functioning human being, but every tissue and organ of her body will grow out of what was once just a single cell.

But there is far more to our baby’s time in the womb than simply growing physically. All of our baby’s senses are developing during his time in the womb. While sound will be his primary source of stimulation, touch, vision, taste and even smell will also help his brain to grow, as he begins learning about his parents and the outside world that will soon be his new home.

Until the advent of four-dimensional ultrasound technology - enabling us to observe babies moving in the womb in real time - our ideas about a baby’s perceptions and experiences in the womb were extremely limited. Recent scientific research has revealed some startling facts about fetal development.

These are some verses in Quran which can be foundation of the importance of pranatal education

"When I have fashioned him (in due proportion) and breathed into him of My spirit, fall ye down in obeisance unto him." (QS. al-Hijr [15]: 29)

"But He fashioned him in due proportion, and breathed into him something of His spirit. And He gave you (the faculties of) hearing and sight and feeling (and understanding): little thanks do we give!" (QS. al-Sajdah [32]: 9)
«Our Lord! we have heard the call of one calling (Us) to Faith, (Believe ye in the Lord,) and we have believed. Our Lord! Forgive us our sins, blot out from us our iniquities, and take to Thyself our souls in the company of the righteous. (QS. Ali Imran [3]:193)

And there is hadith from Imam muslim: The Prophet Muhammad said:
“The search for knowledge is a duty for every Muslim (male or female) and seek knowledge from the cradle to the grave.”

“Unto Allah belongs the sovereignty of the heavens and the earth. He creates what He wills. He bestows female (offspring) upon whom He wills, and bestows male (offspring) upon whom He wills; or He mingles them, males and females, and He makes barren whom He wills. Lo! He is the Knower, Powerful.” [Al-Shura (Council): Verses 49-50] Hence, it is not surprising that Islamic Shariah (law) pays utmost attention to securing all that is needed to guarantee a wholesome psychological climate for the rearing of children, a climate wherein they learn about the world and formulate their customs and norms. Khadafi (2005: 2)

1. As such Islam affirms:A child’s right to health and life.
2. A child’s right to a family, kindred, name, property and inheritance.
3. A child’s right to healthcare and proper nutrition.
4. A child’s right to education and the acquisition of talents.
5. A child’s right to live in security and peace, and enjoy human dignity and protection under the responsibility of the parents.
6. The caring role of society and the state to support all these rights and support families incapable of providing appropriate conditions for their children.

The Islamic Shariah states all of these rights, which are evident in the Quran and the sublime Sunnah of the Prophet Muhammad through his sayings and actions. The Holy Qur’an is God’s Word revealed to Muhummad (pbuh) and it is the Miracle of Miracles (Deedat, 1991: 32)
I. Scientific Discoveries Conform with Quranic Verses

Professor Keith Moore (Anatomy, University of Toronto, Canada) describes the stages of human development, in his book The Developing Human, clinically Oriented Embryology:

“Growth of science was slow during the medieval period and a few high points of embryological investigation undertaken during this age are known to us. It is cited in the Quran, the Holy Book of the Muslims, that human beings are produced from a mixture of secretions from the male and the female.

Several references are made to the creation of a human being from a sperm drop, and it is also suggested that the resulting organism settles in the womb like a seed, six days after its beginning. The human blastocyst begins to implant about six days after fertilisation.

The Quran also states that the sperm drop develops “into a congealed clot of blood”. An implanted blastocyst or a spontaneously aborted conceptus would resemble a blood clot. Reference is also made to the leech-like appearance of the embryo. The embryo is not unlike a leech, or a bloodsucker, in appearance.”

“The embryo is also said to resemble ‘a chewed piece of substance’ like gum or wood. The somites do in fact resemble the teethmarks in a chewed substance.”

“The developing embryo was considered to become human at 40-42 days and to no longer resemble an animal embryo at this stage. The human embryo begins to acquire human characteristics at this stage.

“The Quran also states that the embryo develops between ‘three veils of darkness’.

This probably refers to: the maternal anterior abdominal wall, the uterine wall, and the aminiochorionic membrane. Space does not permit discussion of several other interesting references to human prenatal development which appear in the Quran.” (The Developing Human, Dr KL Moore, M.Sc, Ph.D, FIAC, FRSM)
J. The Effects of Quran’s Recitation on Fetus

The Quran is the holy book of all Muslims in the world. Quran can affect physiological changes. Quran can relieve someone’s anxiety who read or listen. It was the privilege in the Quran. However, what if the Quran is listened by the fetus which is still in the mother’s womb? Is there any particular response?

The gestation period is a period that is awaited by a woman after marriage. That time is a miracle of God given to human beings. He has given a life in the belly of a woman. In general, a woman is given the trust by God obliged to take care of and pay attention to the health and development of the fetus in his stomach. It is necessary because it is a critical period for the development of physical, emotional and mental infants where the closeness of the relationship between the baby and the parents began to form with the consequences that will give long impact especially with regard to the ability and intelligence of the baby in the womb or called prenatal. (William Sallenbach, 1998)

Therefore, at this time, a baby needs special attention, because whatever happens at this time, whether positive or negative effect, it will give effect on later development stages. Every negative condition will give negative impact on growth and development in the future. Thus, one of the efforts to promote growth and development of the fetus is by listening or reading the verses of the Quran to the baby. Quran gives big influence on physiological changes and can reconcile the hearts of those who read or listen. If it is done by pregnant women, it will make her and her baby’s mind calm and stimulate both the intelligence of the fetus as well as efforts to introduce God and religion from an early age.

It has been proved by the true story of “Farih Abdurrahman” a toddler who hafidz (able to memorize) Quran. His mother always recited verse Al-Kahf when Farih still in the womb, listen to Quran and communicate to her fetus. When Farih was born and able to speak when he was 2 years old, the first words spoken by Farih was verse al-Kahf. With his parents guidance, Farih was able to
memorize the Quran in an early age that cannot be done by adults. No perusal or recitation which can increase memorization and give the composure for someone, except reading Quran.

Dr. Al Qadhi from USA in Al Battar (2012) through his research showed that just by reading Quran, a Moslem (whether who speak Arabic or not) can feel the great fisiologic changes. In his research, the result showed that Quran decrease the depression or sadness, gain peace of mind, ward off various diseases. Those are common effects felt by people who became the subject of his research. The discovery of this psychiatrist doctor is not haphazard. His research was supported by the modern electronic equipment to detect blood pressure, heart rate, muscle endurance, and skin resistance to the flow of electricity. From his research results, he concluded that reading the Quran gave great impact up to 97% in giving mental tranquility and healing diseases.

This Dr. Al Qadhi’s research is strengthened by another study carried out by different doctor. In a research report submitted to the Conference of Islamic Medicine North America in 1984, it proved that the Quran was able to bring tranquility to 97% for those who listened to it.

The conclusion of that test result is strengthened by a research conducted by Muhammad Salim which was published in Boston University. The subject of his research was 5 volunteers consisting of 3 men and 2 women. Those five people did not understand Arabic at all and they were not told that what they would listen was the Quran.

That research was conducted along 210 times. It was divided into two sessions. They were reciting the Quran with tartil (reading carefully) and reading Arabic language which is not from the Quran. In conclusion, the respondents got peace up to 65% when listening to the recitation of the Quran and get peace only 35% when listening to the Arabic language which is not from the Quran.

Alquran gives the great impact to the baby. It was stated by Dr. Nurhayati from Malay in Konseling and Psychotherapy seminar.
in 1997. According to her research, a 48 hours old baby which listened the Quran showed the respon, smiled, so he felt more calm.

It is a great happiness if we have Quran. It can be ibadah (faith) if we read it and it can give calmness to our mind and soul. If listening to the music can influence intellectual quotient (IQ) and Emotional Quotient (EQ), reading, reciting or listening to the Quran can have more good impact. It is not just influencing IQ and EQ, but it also influences the Spiritual Quotient (SQ).

وَإِذَا قُرِئَ الْقُرْآنُ فَاسْتَمِعُوا لَهُ وَأَنْصِتُوا لَعَلَّكُمْ تُرْحَمُونَ

When the Qur’an is read, listen to it with attention, and hold your peace: that you may receive Mercy.

The most effective way for practitioners to teach the remembrance is to practice it for themselves first. Inner connection, such as presence in mindfulness, can help bolster wellbeing by ameliorating the effects of stress. One must easily identify his or her own needs in the moment. Many think it is selfish to think of themselves first, but it helps one to create the capacity to give from an authentic space that does not burn out. (Kluny, 2015: 32)

A midwife, Febriawati, also said that she always read and listened the Holy of Quran Alquran when they got pregnancy until her baby 3,5 years old. In her longitudinal research showed some result like below.

1. She is Easy to be directed with religious activities, such as *doa* and *dzikir* (prayer), reading the Quran, *dzikir* (remembrance);
2. She has big willingness to pray, sometimes has initiative to ask her parents to pray together;
3. Sense of morality, namely awareness of errors: she always say sorry after making mistake;
4. She has a very good memory and intelligence
5. She has the creative imagination, like acting with various characters; she has good articulation, fluency and clearness in speaking, reciting Quran and praying.
Tips from Pugh (2015: 97) for Organizing and Delivering Child Birth Education:

1. Remember, the birth of a baby represents the birth of the family. There will be changes in the dynamics of family relationships.

2. Recognize that there is family diversity outside of the traditional family structure. The traditional image of the family is not to be discursively reinforced.

3. Family centered maternity care involves more than the healthcare team. The pregnant woman, her family, and community resources form the circle of care for the team.

4. The rights of the pregnant woman are to be recognized, supported, and upheld. Her needs are to be identified and addressed. Teaching should revolve around these needs and not those of the significant other or caregiver.

5. Keep childbirth education information current and provide evidence-based educational information affixed to the most current research.

6. Childbirth education is not the panacea for poor pregnancy outcomes. It is only one of many interrelated factors that affect the outcome of the birth.

7. Putting the information into perspective with the physiological, sociological and psychological factors will produce pregnant women and families that are better prepared.

In Zaid (2011), he discussed the relationship between learning the Qur’an by heart and academic achievement, language learning and linguistic creativity. It also attempts to arrive at Qur’an-grounded foundations for language acquisition theory. This opinion paper outlines the basis from which to consider the Qur’an not only as a book of religious teachings but also as a linguistic miracle for Arabs. In this vein, the paper considers available research evidence documenting the relationship between language creativity and learning the Qur’an and establishes a relationship between learning the Qur’an and scholastic achievement in other
school subjects. Research has indicated that the Qur’an can be a strong source for teaching thinking methods and creativity. The paper re-considers language acquisition in the light of the Qur’an and research investigations into its effects on creative language learning based on relevant scholarly Arabic writings. The paper ends with pedagogical notes and implications for L1 and L2 learning.

Moreover, Quran also reduce the patients’ heart rate (HR). It is like the result of the research conducted by Awa (2014). The study revealed that Al Quran recitation not significantly effects the physiological stress except for the HR. Holy Quran effect as non-invasive intervention need to be intensively examined as it is believe to promote psycho-spiritual comfort for Muslim mechanically ventilated patients as it reduced the patients’ HR.

From that explanation, it can be said that if pregnant woman is calm and feel comfort when she listens, reads or recites Quran, her baby will feel the same. It influences the adult directly and also influences her baby indirectly.

K. CONCLUSION

The baby’s condition is influenced by his mother’s condition. He will get the calmness and feel comfort if his mother feel comfort. Therefore, giving the best thing to the baby should be done by a mother. It can be a prenatal education. Although the fetus or baby is still in the womb, but his hearing and understanding can develop through the stimulus from the outside. Various researchers showed that pregnant women who read, recite or listen to the Quran can give good impact to the fetus or baby in their wombs. It does not just influence the baby’s Intelligence Quotient (IQ) and Emotional Quotient (EQ), but it also gives Spiritual Quotient (SQ) to the baby.
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