

Factors Affecting Prenatal Development (An Analysis from the *Sunnah* and Contemporary Psychology)

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ABSTRACT

Recent investigations suggest that certain factors play an important role in the development of a child during prenatal period. This article aims to examine the factors affecting prenatal development, significantly, before and during pregnancy with respect to the development of a child's personality at later stages of life.

The *Sunnah* and contemporary psychology highlight a number of factors that may have direct or indirect impact on maternal and fetus health. The *Sunnah* explicitly discusses these factors from a religious and humanistic paradigm for maternal-child health and care during pregnancy. Conversely, contemporary psychologists examine such factors based on the investigations conducted during pregnancy. In order to provide a comprehensive overview of the issue, this research employs content analysis methodology to find out commonalities and differences between the authentic traditions (*Hadīths*) of the Prophet Muhammad (S.W.A) and contemporary psychological studies and research.

This study attempted to integrate the religious and psychological perspectives on mother-child healthcare strategies, therefore, is considered beneficial for humanity specifically for Muslim communities globally. Findings of this article suggest that physical, psychological, religious, and social factors may affect the mother and her fetus respectively from the *Sunnah* domain. On the other hand, psychological studies stresses physical, psychological, and social factors with no emphasize on religious aspects, which are key determinant to affect mother and her fetus during pregnancy. This endeavor also gives an extensive insight into the factors influencing the development at prenatal period from a mother-child care perspective, and hopefully, will serve humankind particularly Muslim parent to take care of their child during prenatal stage.

Keywords: *Factors, prenatal, development, Sunnah, contemporary psychology.*

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Introduction:

Marriage is a social and spiritual contract whereby a man and woman. This article underlines the factors affecting prenatal period from the perspectives of the *Sunnah* and contemporary psychology. Prenatal period begins with conception and ends at birth i.e. until nine months of pregnancy,⁽¹⁾ which sometimes lasts for six months.⁽²⁾ The *Sunnah*, however, is considered unique in stating a child's developmental stages from conception to birth in the mother's womb as mentioned in tradition: a drop of semen, a clot, and a little lump of flesh.⁽³⁾ Prenatal development is defined as, "all growth and elaboration of organic structures in a fetus that takes place from the moment of conception until birth."⁽⁴⁾ The following section delineates the factors affecting the development during prenatal stage from the *Sunnah* and contemporary psychology realms.

Factors Affecting Prenatal Development from the *Sunnah* Perspective

Indeed, Islam sheds light on the importance of children even before birth and stresses on their complete care.⁽⁵⁾ The *Sunnah* gives prime importance to the prenatal child care for a healthy and secure birth and describes a number of factors that can influence the prenatal development. The following discussion depicts common factors affecting the prenatal stage positively or negatively from the *Sunnah* perspective:

i. Prophetic Supplications for the Prenatal Child-Care

The *Sunnah* introduces the supplications related to the prenatal care of children. For example, the Prophet (peace be upon him) used to congratulate a newly-married person with the supplication of Allah's blessings and goodness in all matters of life including children.

"Abu Hurairah reported that the Prophet (peace be upon him) would say, when he wished to congratulate someone who got married:

((بَارَكَ اللهُ لَكَ وَبَارَكَ عَلَيْكَ وَجَمَعَ بَيْنَكُمَا فِي خَيْرٍ))⁽⁶⁾

- (1) Abdul Rahmān, Al-'Iswī, *Psychologia al-Tanishi'a al-Ejtimā'iyah* (Al-Iskandria: Dār al-Fikr al-Jāmi'i't, 1984-85), p. 40.
- (2) Mālik bin Anas, *al-Mu'affā* (Abu Ḥabīb: Mu'assasat Zāyid bin Sulṭān, 2004), 4/1109-1110.
- (3) Bukhārī, Muḥammad bin Ismā'īl, *Ṣaḥīḥ al-Bukhārī*, (Riyāḍ: Dārussalām, 2007), 1/217.
- (4) *The Cambridge Dictionary of Psychology*, ed. David Matsumoto, (Cambridge: Cambridge University Press, 2009), p. 397.
- (5) 'Aṭīyya bin Muḥammad, Sālim, *Sharḥ Bulūgh al-Marām*. (Riyāḍ: Maktabah Shāmila, n.d.), 136/9.
- (6) Abū Dāwūd, Sulaymān bin Ash'ath, *Sunan Abi Dāwūd*, translated by Yāsir Qāḍī (Riyāḍ: Dārussalām, 2008), 2/544. Hafiz Zubayr 'Alī Zay said: [This Hadīth is *Ṣaḥīḥ*].

“May Allah bless you, and (shower) His blessings upon you, and combine you together in good.”

Another tradition mentions the words:

((بَارَكَ اللهُ لَكُمْ وَبَارَكَ عَلَيْكُمْ وَجَمَعَ بَيْنَكُمَا فِي خَيْرٍ))⁽¹⁾

“May Allah bless you [both], and (shower) His blessings upon you, and combine you together in good.”

The supplication includes all good that can be obtained through it [marriage], whether the children or anything else. This supplication is the way [Sunnah] of the Messenger of Allah (peace be upon him) that contains goodness and blessing [for a marriage].⁽²⁾

Furthermore, the Prophet (peace be upon him) commands a Muslim husband to recite the supplication before having intimate relationships (sexual intercourse) with his wife in order to protect themselves and the child from *Satan*.

Ibn 'Abbās reported that Allah's Messenger (peace be upon him) said: “If anyone of you, when intending to have a sexual relation with his wife, says:

((بِسْمِ اللهِ اللَّهُمَّ جَنِّبْنَا الشَّيْطَانَ، وَجَنِّبِ الشَّيْطَانَ مَا رَزَقْتَنَا))⁽³⁾

“In the Name of Allah, O Allah! Protect us from Satan and keep Satan away from what you will give us.”

This shows that the Prophet (peace be upon him) motivates us to recite this blessed supplication before having intimate relationships to protect ourselves and our children from the harms of *Satan*.⁽⁴⁾ There are different opinions [of scholars] about the harms [of *Satan*] including: He [*Satan*] will not become dominant upon him [child] because of the recitation of supplication, he will not harm his [child's] body, he will not convert his [child's] faith to infidelity, and he will not harm by joining his [child] father and mother during intimate relationships,⁽⁵⁾ as well as he will not harm the child physically and psychologically.⁽⁶⁾

(1) Ibn Mājah, Muḥammad bin Yazīd, *Sunan Ibn Mājah*, trans by Naṣīruddīn al-Khaṭṭāb (Riyāḍ: Dārussalām, 2007), 3/93. Hāfiz Zubayr 'Alī Zay said: [This Hadīth is] *Ṣaḥīḥ*.

(2) Abdul Mohsin al-'Abbād, *Sharh Sunan Abi Dāwūd*, (Riyāḍ: Maktabah Shāmilah, 2011), 12/95.

(3) Bukhārī, *Ṣaḥīḥ al-Bukhārī*, 9/298.

(4) Hamza Muḥammad Qasim, *Manār al-Qārī Sharh Mukhtaṣar Ṣaḥīḥ al-Bukhārī* (Damascus: Maktabah Dār al-Biyān, 1990), 5/117.

(5) Abdul Rahmān bin Abī Bakr, Jalāl al-Dīn, al-Suyūṭī, *al-Tas'hīh Sharh al-Jāmi' al-Ṣaḥīḥ* (Riyāḍ: Maktabah al-Rushd, 1998), 1/310.

(6) Humza Muḥammad, *Manār al-Qārī Sharh Mukhtaṣar Ṣaḥīḥ al-Bukhārī*, 5/118.

ii. Characteristics/ Qualities of the Parent (Husband and Wife) and its Impacts on Prenatal Development

The *Sunnah* strongly emphasizes the characteristics of religion and character while looking for a man and woman for an Islamic marriage. A tradition clearly mentions the impacts of neglecting a religious man having best character in the form of turmoil (*Fitnah*) and discord (*Fasād*) in the society.⁽¹⁾ Similarly, a tradition highlights the influences of neglecting a religious woman as: “take possession of (marrying) the religious woman (otherwise) you will be a loser”⁽²⁾ and “a pious wife that helps you in your worldly and religious affairs is better than what people have accumulated”.⁽³⁾ Therefore, the husband and wife having religious and pious personality can provide sound foundations to a family life for the development of children. Consequently, Muslim husband and wife can provide the best possible foundations to a happy and joyful family life, which in turn leads towards the care of their fetus. On the other hand, they may affect the physical and psychological health of the fetus by neglecting their mutual responsibilities and rights.

iii. Maternal Diet and its impact on the Fetus

During pregnancy, a woman’s physical health is an important factor to effect the development and growth of a fetus. A pregnant woman can affect her fetus in two ways; by eating unlawful things as well as by unbalanced diet. The *Sunnah*, in general, recommends Muslims (men and women) lawful food and prohibits unlawful food. Besides, Allah Almighty does not accept the worship of the individual, who nourishes oneself with unlawful things.

Abu Hurairah said: “The Messenger of Allah (peace be upon him) said: . . . Allah has enjoined upon the believers that which He has enjoined upon the Messengers. He [Allah] says: O (you) Messengers! Eat of the Tayyibāt [the lawful] and do righteous deeds. Verily, I am Well-Acquainted with what you do,”⁽⁴⁾ and He [Allah] says: O you who believe! Eat of the lawful things that we have provided you with . . .⁽⁵⁾, then he mentioned a man, who has undertaken a lengthy journey and is disheveled and dusty, raising his hands towards heaven and saying: O Lord, O Lord!

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- (1) See Al-Tirmidhī, Muḥammad Ibn ‘Īsā, *Jāmi’ Al-Tirmidhī*, translated by Abu Khalīl (Riyāḍ: Dārussalām, 2007), 2/455. Shaykh Albānī said: [This Hadīth is] *Hasan*. Nasiruddin, al-Albānī, *Irwā’ Al-Ghalīl* (Beirut: Al-Maktab Al-Islāmī, 1985), 6/266.
 - (2) Bukhārī, *Ṣaḥīḥ al-Bukhārī*, 7/32–33.
 - (3) Al-Bayhāqī, Ahmad bin Al-Husayn, *Shā’ab Al-Īmān*, (Riyāḍ: Maktabah Al-Rushd, 2003), 6/247. Shaykh Albānī said: [This Hadīth is] *Ṣaḥīḥ*. *Ṣaḥīḥ al-Jāmi’*, (Damascus: al-Maktab al-Islāmī, 2010), 2/812.
 - (4) Sūrah Al-Mu’minūn: 23/51.
 - (5) Sūrah Al-Baqarah: 2/172.

But his food is unlawful, his drink is unlawful, his clothing is unlawful, and he is nourished with what is unlawful, so how can he receive a response?''⁽¹⁾

This tradition reveals the importance of eating lawful things; therefore, a pregnant woman should take care of her diet as it directly influences her child's health in the womb. Furthermore, the verse of Holy Qur'an gives a wonderful principle of eating and drinking by stating:

"Eat and drink but waste not by extravagance."''⁽²⁾

The Prophet (peace be upon him) also recommends Muslims to be moderate in their eating and drinking without extravagance and conceit:

"Eat, drink, wear clothes and give alms without extravagance and without conceit."''⁽³⁾

This tradition gives a general principle that is also beneficial for a pregnant woman, as her balanced diet will offer better nutrition to her fetus.

Moreover, the *Sunnah*, apart from the general exemptions for women,⁽⁴⁾ defers her mandatory fasting to secure the physical health of mother and her fetus as mentioned:

"Allah has waived half of the prayer and fasting for the traveler, and from pregnant and breastfeeding woman."''⁽⁵⁾

This shows that He [Allah] has waived half of the prayer from the traveler for relief, and has waived fasting from the pregnant and breastfeeding woman because of her child.⁽⁶⁾

iv. Impact of Heredity on the Prenatal Stage

The *Sunnah* describes the impact of heredity on the physical traits such as color, shape, and body structure of a child. For example, a tradition illustrates the physical impact of heredity at prenatal stage by mentioning the resemblance of a child with parent as:

(1) Muslim, *Ṣaḥīḥ Muslim*, 3/59.

(2) Sūrah Al-A'rāf: 7/31.

(3) Bukhārī, *Ṣaḥīḥ al-Bukhārī*, 7/373. Also see: Ibn Mājah, *Sunan Ibn Mājah*, 4/493. Shaykh Albānī said: [This Hadīth is] *Hasan*. Ṣaḥīḥ Ibn Mājah, 2/283.

(4) For example, women are given exemption of prayer and fasting during menses period, and similarly after the birth of baby for forty days. *Author*

(5) Al-Nasā'ī, *Sunan Al-Nasā'ī*, translated by Nasiruddin al-Khattab (Riyāḍ: Dārussalām, 2007), 3/238. Hāfiz Zubayr 'Alī Zay said: [This Hadīth is] *Hasan*.

(6) Mahmoud bin Ahmad, Badr Al-Dīn, Al-'Aynī, *Nukhabat Al-Afkār Fī Tanqīḥ Mabānī al-Akhhār Fī Sharḥ M'ānī al-Āthār*, 1st ed. (Qatar: Wazārat al-Awqāf Wa al-Shu'ūn al-Islamiyah, 2008), 6/379.

Anas said: "The Messenger of Allah said: 'The man's water is thick and white, and the woman's water is thin and yellow. Whichever of them comes first, the child will resemble (that parent).'"⁽¹⁾

This refers to a man and woman's seminal fluid, and whose fluid discharges first or becomes dominant and more in volume, the child will get resemblance of disposition and gender to that parent (father or mother).⁽²⁾

Similarly, a tradition explains the resemblance of a child with his/ her paternal and maternal relatives as:

"... If her [woman] water prevails over that of the man, then the child will resemble his maternal uncles, and if the man's water prevails over hers, then he will resemble his paternal uncles."⁽³⁾

In addition, another tradition presents the practical example of transferring physical characteristics from the parent to the child, whereby a man complained about the black color of his boy, and the Prophet (peace be upon him) said:

"May be your latest son has this color because of heredity."⁽⁴⁾

v. Home Environment and its Impacts on Pregnant Woman

The *Sunnah* addresses the family life in such a way that promotes and strengthens a healthy and prosperous and caring home environment for the development of children personality. There are a number of factors that may influence the family environment including spouses' personality, religious beliefs, character, communication ways, language style, etiquettes, mutual respect, economic conditions, and domestic violence. The *Sunnah* affirms the protection of husband and wife through their certain qualities: i.e., mutual responsibilities and rights, religiousness, righteousness, piousness, nice speech, Islamic etiquettes and morals, respectful and lovely behavior to deal with all matters of family life including the fetus care. For instance, the Prophet (peace be upon him) commands a Muslim husband as: "... the man is a guardian of his family and responsible for his charges . . .,"⁽⁵⁾ "The best of you is the one who is best to his wife . . .,"⁽⁶⁾ "I enjoin good treatment of women . . . And their [women's] rights over you are that you treat them well in clothing them and

(1) An-Nasā'ī, *Sunan An-Nasā'ī*, 1/135. Hāfiz Zubayr 'Alī Zay said: The chain of this [Hadīth] is *Ṣahih*.

(2) Muḥammad bin 'Alī, al-Lu'luwī, *Zakhīrat al-'uqbā Fī Sharh al-Mujtabā*, 1st ed. (Riyād: Dār al-Mirāj al-Duwliya, 1996), 4/210.

(3) Muslim, *Ṣahīḥ Muslim*, 1/429. See also: Bukhārī, *Ṣahīḥ al-Bukhārī*, 6/171–72.

(4) Bukhārī, *Ṣahīḥ al-Bukhārī*, 7/149–50.

(5) *Ibid*, 3/420.

(6) Ibn Mājah, *Sunan Ibn Mājah*, 3/131. Hāfiz Zubayr 'Alī Zay said: [This Hadīth is] *Hasan*.

feeding them,"⁽¹⁾ "Treat women nicely,"⁽²⁾ and "And I command you to take care of the women in a good manner."⁽³⁾ Similarly, the Prophet (S.W.A) commands a Muslim wife as: "a woman is a guardian of her husband's house and responsible for her charges . . . ,"⁽⁴⁾ and "Any woman who dies when her husband is pleased with her, will enter Paradise."⁽⁵⁾ "The Messenger of Allah (S.W.A) never beat any of his servants or wives and his hand never hit anything."⁽⁶⁾ Therefore, Muslim husband and wife can provide the best foundations to the home environment by controlling domestic violence and avoidance behavior, so that social relations can remain in harmony with the harmonious concord between husband and wife, which eventually leads towards the best care of the fetus/child.

vi. Prohibition of Intoxicants and its relevance to the Mother-Fetus Safety

The *Sunnah* prohibits the intoxicants like alcohol, opium, cocaine, marijuana, and heroin for Muslims and considers them in unlawful things. Therefore, a pregnant woman should not use the intoxicants as these have harmful effects on her and her fetus. The *Sunnah* counts intoxicants in unlawful things as mentioned in a tradition:

Ibn Umar reported that the Messenger of Allah (peace be upon him) said: "Every intoxicant is Khamr and every intoxicant is Harām [unlawful]."⁽⁷⁾

In another tradition, even small amount of intoxicants is prohibited:

Abdullah bin Umar reported that the Messenger of Allah (peace be upon him) said: "Every intoxicant is unlawful and whatever causes intoxication in large amounts, a small amount of it is (also) unlawful."⁽⁸⁾

The use of *khamr*⁽⁹⁾ as a remedy from a disease is prohibited in a tradition:

- (1) At-Tirmidhī, *Jāmi' Al-Tirmidhī*, 2/531. Hafiz Zubair 'Ali Za'ī said: [This Hadīth is] *Ṣaḥīḥ*.
- (2) Bukhārī, *Ṣaḥīḥ al-Bukhārī*, 4/329.
- (3) Ibid, 7/81.
- (4) Ibid, 3/420.
- (5) Ibn Mājah, *Sunan Ibn Mājah*, 3/64. Hāfiz Zubayr 'Alī Zay said: [This Hadīth is] *Hasan*.
- (6) Ibid, 3/134. Hāfiz Zubayr 'Alī Zay said: [This Hadīth is] *Ṣaḥīḥ*.
- (7) Muslim, *Ṣaḥīḥ Muslim*, 5/353.
- (8) Ibn Mājah, *Sunan Ibn Mājah*, 4/386–87. Hāfiz Zubayr 'Alī Zay said: The chain of this [Hadīth] is *Ṣaḥīḥ*.
- (9) The Arabic word *khamr* (خمير) means to veil, cover; to hide, conceal. It is also used for wine; liquor, alcoholic beverage, and drink, intoxicant, inebriant, booze; alcohol, and spirits. Rohi Baalbaki, *al-Mawrid (Qāmūs): A Modern English Arabic Dictionary*, 7th ed. (Beirut: Dar Al-'Ilm Lil-Malayīn, 1995), p. 523.

Wā'il Al-Ḥaḍramī, reported that Tariq bin Suwaid Al-Ju'fi asked the Prophet (peace be upon him) about Khamr, and he forbade him or expressed his disapproval of his making it. He said: "I only make it as a remedy." He said: "It is not a remedy, but it is a disease."⁽¹⁾

This shows that intoxicants, even in small amount, have evil effects on health, particularly in case of a pregnant woman whose fetus is totally dependent upon her for feeding. In a tradition, Abu Dardā' mentions:

"My close friend (peace be upon him) advised me: 'Do not drink wine for it is the key to all evils.'⁽²⁾

vii. Strategies for the Psychological Health of Mother and Fetus

Despite the instructions for a family care, the *Sunnah* addresses the issues of psychological health of a pregnant woman and eventually the fetus. For example, a tradition protects the psychological health of a pregnant woman in case of miscarriage by mentioning the reward as:

Mu'ādh bin Jabal reported that the Prophet (peace be upon him) said: "By the One in Whose Hand is my soul! The Miscarried fetus will drag his mother by his umbilical cord to Paradise, if she sought reward (for her loss)."⁽³⁾

Likewise, to remove the fear of death during pregnancy, the *Sunnah* dignifies a woman's death among martyr as mentioned in a tradition: "*and the woman who dies in pregnancy is a martyr.*"⁽⁴⁾

The *Sunnah* also protects the psychological health of a woman in case of her child's death by explaining its reward as:

Abu Sa'īd reported: The women requested the Prophet (peace be upon him), "Please fix a day for us (to preach)." So the Prophet (S.W.A) preached them and said, "A woman whose three children died would be screened from the (Hell) Fire by them, "Hearing that, a woman asked, and "If two died?" The Prophet (S.W.A) replied, "Even two would screen her from the (Hell) Fire."⁽⁵⁾

(1) Muslim, *Ṣaḥīḥ Muslim*, 5/329.

(2) Ibn Mājah, *Sunan Ibn Mājah*, 4/377. Hāfiz Zubayr 'Alī Zay said: The chain of this [Hadīth] is *Hasan*.

(3) Ibid, 2/451. Nāsiruddīn Albānī said: [This Hadīth is] *Hasan*. Sunan Ibn Mājah, (Beirut: Darul Fikr, n.d.), 1/513.

(4) An-Nasā'i, *Sunan An-Nasā'i*, 3/31-32. Hāfiz Zubayr 'Alī Zay said: The chain of this [Hadīth] is *Ṣaḥīḥ*.

(5) Bukhārī, *Ṣaḥīḥ al-Bukhārī*, 2/202.

viii. Divorce and its impacts on Prenatal Stage

Divorce not only breaches the family bond but also disturbs the children upbringing and rearing practices. Although, the *Sunnah* allows divorce during pregnancy, however, the eminent religious scholars dislike divorce of a pregnant woman in order to provide secure and safe birth. Generally speaking, the *Sunnah* highly stresses the issue of divorce for the safety of marriage bond between husband and wife. For example, the Prophet (peace be upon him) highlights the severity of doing divorce as:

Abdullah bin Umar reported that the Messenger of Allah (S.W.A) said: "The most hated of permissible things to Allah is divorce."⁽¹⁾

Similarly, the *Sunnah* does not allow divorcing woman even in a joke.

Abu Hurairah reported that the Messenger of Allah (S.AW) said: "Three things, when done in earnest are counted as earnest, and when done in jest, are also counted as earnest: Marriage, divorce, and taking (a divorcee) back."⁽²⁾

Furthermore, the *Sunnah* does not allow a woman to demand divorce, when it is not absolutely needed.

Ibn Abbas narrated that the Prophet (S.W.A) said: "No woman asks for divorce when it is not absolutely necessary, hut she will never smell the fragrance of paradise, although its fragrance can be detected from a distance of forty years travel."⁽³⁾

Moreover, the Prophet (S.W.A) does not recognize the individual 'ā'ī among his *Ummah* [not a true follower of Islam], who causes misunderstanding between husband and wife that leads to a divorce.

Abu Hurairah reported that the Messenger of Allah (peace be upon him) said: "He who ruins a woman for her husband, or a slave for his master, is not of us."⁽⁴⁾

ix. The Supplication (Du'ā') Therapy for a Pregnant Woman

The Arabic word 'Du'ā' is translated as prayer, supplication and invocation.⁽⁵⁾ Islamic supplications connect humankind to Allah Almighty to seek His divine help in all matters of life. The *Sunnah* recommends Muslims (male and female) reciting the supplications for the safety and protection from

(1) Ibn Mājah, *Sunan Ibn Mājah*, 3/154. Hāfiz Zubayr 'Alī Zay said: [This Hadīth is] *Ṣahih*.

(2) Abū Dāwūd, *Sunan Abi Dāwūd*, 3/29. Hāfiz Zubayr 'Alī Zay said: [Hadīth is] *Hasan*.

(3) Ibn Mājah, *Sunan Ibn Mājah*, 3/175. Hāfiz Zubayr 'Alī Zay said: [Hadīth is] *Hasan*.

(4) Abū Dāwūd, *Sunan Abi Dāwūd*, 3/19. Hāfiz Zubayr 'Alī Zay said: [Hadīth is] *Hasan*.

(5) Rūhī Ba'lbakkī. *al-Mawrid (Qāmūs)*, p. 543.

all mental and physical sicknesses. During pregnancy, a woman undergoes psychological and physical changes, which may lead her to suffer from different negative thoughts, emotional swings, and physical problems. Through supplications by creating a strong bond and firm belief in Allah Almighty, a pregnant woman can secure herself from all psychological disturbances and physical problems, which may influence the fetus health in the womb. The Prophet (peace be upon him) used to recite the supplications during day and night time particularly after *Fajr* and *Maghreb* prayers.⁽¹⁾ Some specific supplications to deal with the distress situations in general and during pregnancy in particular are mentioned below:

((لَا إِلَهَ إِلَّا اللَّهُ الْعَظِيمُ الْحَلِيمُ، لَا إِلَهَ إِلَّا اللَّهُ رَبُّ الْعَرْشِ الْعَظِيمِ، لَا إِلَهَ إِلَّا اللَّهُ رَبُّ السَّمَوَاتِ وَرَبُّ الْعَرْشِ الْكَرِيمِ))⁽²⁾

"None has the right to be worshipped but Allah, the Majestic, the Most Forbearing. None has the right to be worshipped but Allah, the Lord of the heavens and the earth, and the Lord of the Tremendous Throne."

((اللَّهُمَّ رَحْمَتَكَ أَرْجُو فَلَا تَكِلْنِي إِلَى نَفْسِي طَرْفَةَ عَيْنٍ وَأَصْلِحْ لِي شَأْنِي كُلَّهُ لَا إِلَهَ إِلَّا أَنْتَ))⁽³⁾

"O Allah, for Your mercy I hope, so do not abandon me to myself for an instant. Set all my affairs straight, there is none worthy of worship but You."

Asmā' bint 'Umays reported that the Messenger of Allah (peace be upon him) said to her: "Should I not teach you phrases that you may say at times of distress or during distress?"

((اللَّهُ اللَّهُ رَبِّي لَا أُشْرِكُ بِهِ شَيْئًا))⁽⁴⁾

"Allah, Allah! He is my Lord; I do not associate any partners with Him."

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- (1) These supplications can be recited and memorized from the book *Hiṣn Al-Muslim* compiled and referenced by Sa'īd Ibn 'Alī *al-Qaḥṭānī* and published by Dār al-Ishā'at Karachi Pakistan. This book can also be obtained through play store in android mobile phone. *Author*
- (2) Bukhārī, *Ṣaḥīḥ al-Bukhārī*, 8/199.
- (3) Abū Dāwūd, *Sunan Abi Dāwūd*, 5/406. Shaykh Nāsiruddīn Albānī said: *The Chain is Hasan.*
- (4) Ibid, 2/219. Hāfiz Zubayr 'Alī Zay said: [This Hadīth is] *Hasan.*

This section provides an overview of theoretical and empirical psychological studies and research addressing the factors affecting prenatal development. Contemporary Psychologists have listed a number of factors influencing the physical and psychological development at the prenatal period that may serve to influence the developing child during the prenatal period. The following section highlights the interplay of these factors within the framework of theoretical and empirical research of psychology.

i. Impacts of Maternal Nutrition and Diet on Fetus

A developing fetus receives nutrition from the mother's blood and is fully dependent on it.⁽¹⁾ Maternal diet affects the developing fetus.⁽²⁾ Many studies indicate that adequate maternal food consumption has a significant impact on the health of newborn babies.⁽³⁾ For unborn children, the mother is the sole and vital source of balanced nutrition consisting of proteins, fats, carbohydrates, minerals, and vitamins for the developing fetus.⁽⁴⁾ For a healthy woman, a well-balanced diet is needed, given that physical and neural growth and development of the fetus is maintained through the mother's food consumption.⁽⁵⁾ Conversely, a malnourished mother will generally give birth to a malnourished baby given that the developing fetus receives nutrients from the mother through the placenta.⁽⁶⁾ However, poor maternal nutrition is a risk factor for the fetus.⁽⁷⁾ For instance, sub-healthy levels of nutrition appear to effect the development of the nervous system, whereas malnutrition is understood to influence vulnerability in fetal development,⁽⁸⁾ particularly in the central nervous system, and subsequent intellectual performance in

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- (1) Matthews, F., Youngman L., and Neil A., "Maternal Circulating Nutrient Concentrations in Pregnancy: Implications for Birth and Placental Weights of Term Infants," in *Children*, John W. Santrock, 8th ed. (Boston: McGraw Hill, 2005), p. 129; Schaffer, *Introducing Child Psychology*, p. 58.
 - (2) Michael E. Lamb, Marc H. Bornstein and Douglas M. Teti, *Development in Infancy: An Introduction*, 4th ed. (New Jersey: Lawrence Erlbaum Associates, Publishers, 2002), p. 105.
 - (3) Laura E. Berk, *Development Through the Lifespan*, 16th ed. (Boston: Pearson, 2014), p. 92.
 - (4) Robert V. Kail and Rita Wicks-Nelson, *Developmental Psychology*, 5th ed. (New Jersey: Prentice Hall, 1990), p. 53.
 - (5) Danuta Bukatko, and Marvin W. Daehler, *Child Development: A Thematic Approach*, 5th ed. (Boston MA: Houghton Mifflin Company, 2004), p. 142.
 - (6) Jeffrey Trawick-Smith, *Early Childhood Development: A Multicultural Perspective*, 5th ed. (New Jersey: Pearson, 2010), p. 75.
 - (7) Peter K. Smith, Helen Cowie and Mark Blades, *Understanding Children's Development*, 4th ed (Oxford: Blackwell Publishing, 1988), p. 69.
 - (8) Helen Bee, *The Developing Child*, 8th ed. (New York: Longman Inc., 1997), pp. 56–58, 63.

children.⁽¹⁾ Prenatal malnutrition influenced by inadequate maternal diet during pregnancy can cause serious damage to the developing fetus' organs including the brain,⁽²⁾ pancreas, liver, and blood vessels, which result in lifelong health problems.⁽³⁾ Therefore, maternal malnutrition in pregnancy is perilous to the development and nourishment of fetus.⁽⁴⁾

ii. Impacts of Mother's Emotional State on the Fetus

The mother's emotional state is a significant factor that impacts upon the prenatal stage of development.⁽⁵⁾ The mother and fetus have no neural connections between each other; therefore, maternal psychological functioning may be translated into physiological effects that impact the developing fetus.⁽⁶⁾ Usually, the expectant [pregnant] mother experiences variation in her emotional conditions,⁽⁷⁾ which may include positive association with producing a child, optimism and hope about becoming a parent, as well as negative mood swings which may result in crying and/ or depression.⁽⁸⁾ A range of studies have shown that a mother's emotional state may affect the level of birth complications and low birth weight. Prenatal problems including poor environmental factors seem to produce long-term negative effects in children.⁽⁹⁾ The emotional state of the mother during pregnancy can influence the fetus and birth. Such states may range from positive emotional experiences to general anxiety and/ or low mood to intense fear and prolonged depression.⁽¹⁰⁾ During early pregnancy, maternal stress may increase the level of corticotrophin-releasing hormone (CRH)⁽¹¹⁾ that is associated with premature delivery.⁽¹²⁾

iii. Impacts of Maternal Stress on the Embryo and Fetus

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- (1) Morgan P. J., et al., "Prenatal Malnutrition and Development of the Brain," *Neuroscience and Behavioral Reviews* 1, (1993): pp. 91-128.
 - (2) Berk, *Development Through the Lifespan*, p. 92.
 - (3) Barker D. J., "Human Growth and Cardiovascular Disease," Nestlé Nutrition Workshop Series 61 (2008): pp. 21-38.
 - (4) Lamb, et al., *Development in Infancy*, p. 105.
 - (5) Bee, *The Developing Child*, pp. 53, 62.
 - (6) Encyclopedia of Infant and Early Childhood Development, ed. Marshall M. Haith and Janette B. Benson, (London: Academic Press, 2008), 2/604-614.
 - (7) Beeber, L., "The Pinks and the Blues: Symptoms of Chronic Depression in Mothers during their Children's First Year," in *Children*, Santrock, p. 114.
 - (8) Santrock, *Children*, p. 114.
 - (9) Bee, *The Developing Child*, pp. 53, 62.
 - (10) Santrock, *Children*, p. 130.
 - (11) Hobel C. J., Dunkel-Schetter, C., Roesch, S. C., Castro, L. C., and Arora, C. P., "Maternal Plasma Corticotrophin-Releasing Hormone Associated with Stress at 20 Weeks' Gestation in Pregnancies Ending in Preterm Delivery," in *Children*, Santrock, p. 130.
 - (12) Santrock, *Children*, p. 130.

Serious prolonged stress in comparison to mild stress may increase the risk of serious complications during pregnancy.⁽¹⁾ Recent studies have examined the effects of induced maternal stress, emotions, and hormonal changes on fetal functioning.⁽²⁾ Prenatal maternal stress is associated with cognitive, behavioral, physical, and emotional problems in children.⁽³⁾ Studies have shown that prenatal stress affects physical and functional development in infants and is associated with more difficult child behavior during the first 10 years of childhood.⁽⁴⁾ Maternal stress affects the health of the embryo or fetus negatively and alters the fetal and infant developmental trajectory by disturbing hormones (cortisol, gonadotropins, estrogen and progesterone), nutrient, blood flow and oxygen availability to the embryo or fetus.⁽⁵⁾ Bergh highlighted that several behavioral problems including ADHD⁽⁶⁾ in children were linked to prenatal anxiety, stress, and depression of mothers.⁽⁷⁾ Women who experience severe stress and anxiety during pregnancy are more likely to give birth to infants with abnormalities.⁽⁸⁾ Emotional stress is also associated with spontaneous abortion, difficult labour, premature birth, and newborn respiratory complications as well as a range of physical defects.⁽⁹⁾ Lipton suggests that parents must remain conscious to the fact that their thoughts, attitudes and behaviors will profoundly influence their child's development and health from conceiving through prenatal and postnatal development.⁽¹⁰⁾ However, psychological research has examined no demonstrated link

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- (1) Kail and Wicks-Nelson, *Developmental Psychology*, p. 54.
 - (2) Di Pietro J. A., et al., "Fetal response to induced maternal stress," *Early Human Development* 11, (2003): pp. 41–45.
 - (3) King, S., et al., "Prenatal maternal stress from a natural disaster predicts dermatoglyphic asymmetry in humans," *Developmental Psychology* 21, (2009): pp. 343–353.
 - (4) Mulder E. J. H., et al., "Prenatal maternal stress: effects on pregnancy and the (unborn) child," *Early Human Development* 70, (2002): pp. 3–14.
 - (5) Kathleen, "Environmental Influences on Prenatal Development and Health," in *Lifespan Perspectives on Health and Illness*, ed. Thomas L. Whitman, Thomas V. Merluzzi and Robert D. White., (London: Lawrence Erlbaum Associates Inc., 1999), pp. 94–96.
 - (6) Attention Deficit Hyperactivity Disorder (ADHD) is a disability in which children consistently show one or more of these characteristics over a period of time including inattention, hyperactivity, and impulsivity. Santrock, *Children*, p. 299.
 - (7) Bergh B., et al., "Antenatal Maternal Anxiety and Stress and the Neurobehavioural Development of the Fetus and Child: Links and possible mechanisms. A Review," *Neuroscience and Biobehavioral Reviews* 29, (2005): pp. 237–258.
 - (8) Michele Hoffnung, Robert J Hoffnung, Kelvin L Seifert, Rosanne Burton Smith, 'Alison Hine, Lynn Ward, and Cat Pause, *Lifespan Development*, 2nd ed. (Queensland: John Wiley and Sons, 2013), p. 90.
 - (9) Hoffnung M, *Lifespan Development*, p. 90.
 - (10) Bruce H. Lipton, "Maternal Emotions and Human Development", accessed May 4, 2015 from <https://birthpsychology.com/free-article/maternal-emotions-and-human-development>

between minor maternal everyday stress levels and the fetus health or infant outcomes.⁽¹⁾

iv. Impacts of Mother's Voice and other Sounds on the Fetus

A mother's voice stimulates the sensory experience of the fetus. This voice exposure during the fetal stage and early infancy plays an important role for language development in children. Further, the emotional aspect of speech is significant for emotional development before and after birth.⁽²⁾ In one study researchers examined the effects of sound on the foetus [fetus] heart rate and rhythms of kicking and found a positive correlation with auditory stimulation; the findings confirm that the foetus [fetus] is cognitively sophisticated prior to birth.⁽³⁾ Experimental investigations have confirmed the prenatal learning of voices for the fetus inside the uterus of the mother. The studies highlight the new born child's preference for the mother's voice after birth, due to prenatal learning. Some studies have examined the impacts of maternal heartbeat as well as music during pregnancy and found a positive correlation to the learning of language after birth.⁽⁴⁾

v. Prenatal Behavior after Birth

Studies have shown that prenatal behaviors and abilities have an immediate and long-term influence after birth. The direct influences of prenatal behavior of the fetus include maternal recognition, attachment and breast-feeding behavior. The long-term influences include the development of the nervous and visual systems, as well as behavioral and psychological functioning. During the prenatal stage, genetic influences play an important role in the foundation of the subsequent development of behavior.⁽⁵⁾ The Following model shows the interaction of information from both the genotype and environment in determining behavior.

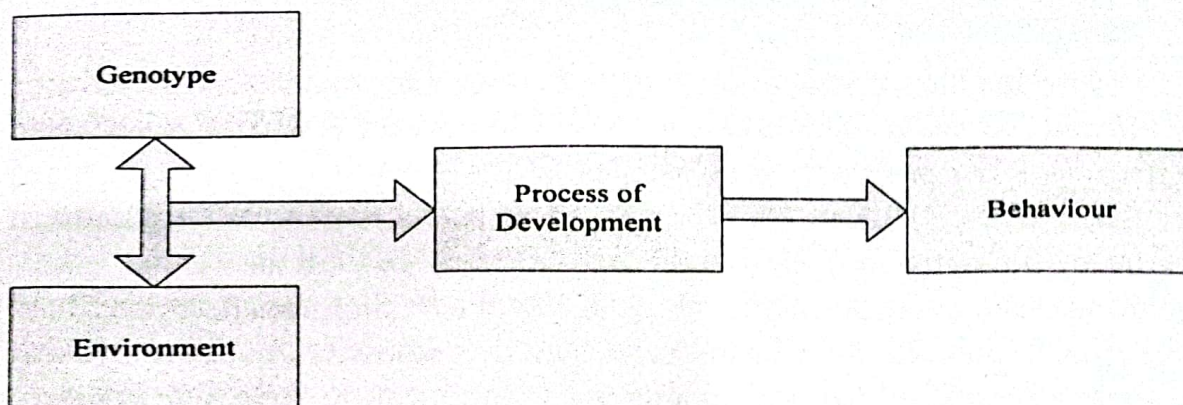
(1) Hughes, Noppe, and Noppe, *Child Psychology*, p. 71.

(2) Baltes E., "Modularity, domain specificity and the development of language," *Discussion in Neuroscience* 10, (1994): pp. 136-149.

(3) Peterson, *Looking Forward Through the Lifespan: Developmental Psychology*, p. 90.

(4) Peter Hepper, "Prenatal Psychological and Behavioural Development," in *Handbook of Developmental Psychology*, Jaan Valsiner and Kevin J. Connolly (London: SAGE Publications, 2003), pp. 92-113.

(5) Peter Hepper, "Prenatal Psychological and Behavioural Development," pp. 92-113.



Model of the information from the genotype and environment to determine behavior⁽¹⁾

vi. Impacts of Teratogens during the Prenatal Period

Teratology is defined as, “the study of birth defects and behavioral problems that arise from environmental influences during the prenatal period.” Teratogens are environmental agents that cause disruption to fetal development.⁽²⁾ Such agents are also referred to as developmental toxins and include ethanol, tobacco, rubella, external pressure, radiation, and maternal stress.⁽³⁾ A range of studies has confirmed the harmful effects of drug taking at the prenatal stage and after birth. For example, in the case of smoking during pregnancy, nicotine contracts the blood vessels and reduces the blood flow to the placenta; resulting in a decrease in the healthy nutrition of the fetus.⁽⁴⁾ Further, children of smoking mothers have higher rates of behavioral problems.⁽⁵⁾ A mother’s moderate drinking of alcohol, cigarette smoking, a partner’s smoking, cocaine, marijuana, and heroin use, are not recommended during pregnancy because they can have deleterious effects on the fetus and prenatal development.⁽⁶⁾ Drugs such as heroin, cocaine, alcohol and tobacco affect the fetus and unborn children are at greater risk of a variety of problems and disorders across the lifespan.⁽⁷⁾ Recent evidence has shown that children of moderate or social drinkers have lower IQ (below 85) and a poorer attention span. Bee recommends cessation of drinking during pregnancy.⁽⁸⁾

- (1) This model is drawn from Peter K. Smith., *Understanding Children's Development*, p. 34.
- (2) Danuta Bukatko, and Marvin W. Daehler, *Child Development*, p. 126.
- (3) Kathleen J. Sipes Kolberg, “Environmental Influences on Prenatal Development and Health,” p. 94.
- (4) Bee, *The Developing Child*, p. 53.
- (5) Fergusson, D. M., Horwood, L. J., and Lynskey, M. T., “Maternal smoking before and after pregnancy: Effects on behavioral outcomes in middle childhood,” *Pediatrics* 92, (1993): pp. 815–822.
- (6) Santrock, *Children*, pp. 124–126.
- (7) Hoffnung M., *Lifespan Development*, pp. 85–86.
- (8) Bee, *The Developing Child*, p. 54.

vii. Impacts of Family and Social Environment

For healthy prenatal development a stable social environment is significant. Domestic violence is a serious hazard for pregnant women and their babies. The pregnant woman's environment can be seriously impacted by high-risk family stress and violence as well as the physical condition of pregnancy. Prenatal care is strongly influenced by life circumstances, ethnic conditions, and socioeconomic status of women.⁽¹⁾ Significant sociocultural dimensions that affect prenatal care include; ethnicity, decision making patterns, religious preference, language, communication style, and common etiquettes.⁽²⁾

viii. Genetic Errors during Conception

Genetic errors occur at the moment of conception that cannot be altered. Such errors lead to conditions such as; Down's syndrome⁽³⁾ in which children have distinctive facial features and are typically retarded; Sex-chromosome anomalies⁽⁴⁾ in which children show unusual physical features and some cognitive deficits; Fragile-X syndrome⁽⁵⁾ where children experience adverse intellectual or behavioral consequences); Single-Gene defects⁽⁶⁾ where the child inherits a gene for a specific disease).⁽⁷⁾ Recessive gene disorders can occur due to a pair of recessive genes from each parent that the fetus inherits, whereas multifactorial disorders occur due to genetic and environmental factors.⁽⁸⁾

Conclusion

This article outlines the key factors associated with the prenatal period and the early development of the fetus. The findings from the *Sunnah* of the Prophet (S.W.A) and western psychological research and studies highlight the impacts of various factors on the prenatal development of children; specifically maternal nutrition, the mother's emotional state, impact of

(1) Hoffnung M., *Lifespan Development*, p. 89.

(2) Santrock, *Children*, p. 120.

(3) A child has three copies of chromosome due to the failure of proper meiosis. Santrock, *Children*, p. 120.

(4) Klinefelter's syndrome is due to XXY pattern of chromosome that causes boys underdeveloped testes and learning and language disabilities, whereas Turner's syndrome is due to XO or XXX pattern that causes girls sterile. Bee, *The Developing Child*, pp. 47-49.

(5) It occurs due to an abnormal section of DNA at a specific location on the X-chromosome ordinarily from a carrier mother. Bee, *The developing child*, p. 49.

(6) Mental retardation is caused by 141 diseases or disorders with known genetic loci and 361 more whose loci have not yet been identified. Wahlstrom, J., "Gene map of mental retardation," *Journal of Mental Deficiency Research* 34, (1990): pp. 11-27.

(7) Bee, *The Developing Child*, pp. 47-49.

(8) Hoffnung M., *Lifespan Development*, p. 71.

heredity, the sound of the mother's voice in womb, the family environment including domestic stability, and the potential harms of intoxicants (teratogens). Moreover, the *Sunnah* highlights the impact of mother's religious nature, the personality of parent, the mutual responsibilities of husband and wife, issues of divorce, mother's lawful [*Halāl*] food. This shows that the *Sunnah* is distinctive in illuminating these aspects from a religious and humanistic paradigm. By contrast, contemporary psychological research gives explanation to the effects of genetic errors on maternal and fetal wellbeing. However, the *Sunnah* promotes treatment of any kind of diseases as clearly mentioned in a tradition, whereby the Prophet (peace be upon him) said, "There is no disease that Allah has sent down except that He also has sent down its treatment."⁽¹⁾ This tradition highlights that the *Sunnah* approves the use of medicines [based on lawful ingredients] for the treatment of diseases, having the intention of cure [*Shifā'*] from Allah Almighty as the Holy Qur'an states about the Prophet Ibrāhīm (peace be upon him): "And when I am ill, it is He [Allah] who cures me."⁽²⁾ To summarize, the article predominantly has provided a summary of key findings drawn from the *Sunnah* and contemporary psychological research and studies to develop an understanding of factors affecting prenatal development of the child in mother's womb particularly for the welfare of Muslim communities.



(1) Rukhārī, *Ṣaḥīḥ al-Bukhārī*, 7/326.

(2) Sūrah Ash-Shu'rā: 26/80.