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Pregnant Women's Perception of Pregnancy, Childbirth and Postpartum Care: Literature Review in Developing Countries

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Abstract

BACKGROUND: Approximately 10.7 million pregnant women have passed away from 1990 to 2015 due to obstetric complications. Nearly all of them (99% of global maternal deaths) take place in developing countries. As a matter of fact, most people in developing countries have implemented many cultural practices which bring about negative effects on pregnant women's health behavior to potentially have greater risk of obstetric complications. Unfortunately, no comprehensive research yet conducted especially on pregnant women's perceptions of pregnancy, childbirth, and postpartum care (PC) in developing countries.

AIM: The aim of the study was to identify factors of pregnant women's perception of pregnancy, childbirth, and PC in developing countries.

METHODS: The research was carried out through Literature Review in which electronic database search the so-called database Science Direct, PubMed, Elsevier (SCOPUS), Springerlink, and Google Scholar was conducted in January 2021. The steps of systematic review were through Preferred Reporting Items for Systematic Reviews and Meta-analyses method.

RESULTS: Modifying factors with pivotal role during the service of pregnancy, childbirth, and PC in developing countries are knowledge, ethnicity, socioeconomics, and personality. Most individual beliefs in developing countries are perceived barriers. Whereas, Perceived susceptibility and severity of disease, perceived benefits, perceived self-efficacy, and perceived threat to make the most use of health service during pregnancy, childbirth, and PC are also well-known with variables of external cues to action is among the most popular ones especially with personal experience and information from neighborhood with local habits and belief unsupportive to health service.

CONCLUSION: Factors to influence perception, practice, and access during pregnancy, childbirth, and PC in developing countries are culture, knowledge, distance, education, experience, mental stress, no decision-making autonomy, and social supports. Thus, comprehensive research on the influence of modifying factors of individual behavior and cues to action needs to be carried out.

Introduction

Pregnancy is a normal occurrence experienced by most women as part of reproduction process. Whereas, perception deals with experience on objects, occurrence, and connections through information inference and interprated messages [1]. A pregnant woman might have different perception from health officers about her pregnancy. Various pregnant women's points of view and belief on pregnancy, childbirth, and postpartum care (PC) will eventually influence their health condition during pregnancy such as: what they believe about pregnancy, how to deal with pregnancy care, sort of emotional change to deal with, and ways of delivery (childbirth) [2].

Pregnant women are at risk of complications during pregnancy and 15% of pregnant women suffer from specific obstetric complications [3]. As a matter of fact, frequent obstetric complications are bleeding, pre-eclampsia, and infection. Approximately 10.7 million pregnant women have passed away from 1990 to 2015 due to obstetric complications. Nearly all of them (99% of global maternal deaths) take place in developing countries [4]. High rate of woman's mortality in developing countries is due to their poor access to health facilities [3], [4]. In addition, some factors such as demography, culture, social-economy, belief, religion, and traditional practices also contribute pregnant woman's mortality [5], [6], [7].

In developing countries with various cultural backgrounds, the society through their cultural practices has negative impact on pregnant women's health lifestyle so that they are at risk of complications [5], [6]. In some cultures, for instance, pregnant women avoided certain food, and this obviously influences their nutrition

intake [8]. Likewise, poor level of knowledge will also impact on their health [9]. In Nigeria, people with poor knowledge can do nothing about "gishiri incision" the so-called vaginal surgery conducted by traditional midwife during difficult delivery [10].

Pregnant women's perception of their pregnancy was mostly influenced by non-medical factors such as: Spiritual, belief, and supranatural. Thus, such perception will eventually lead them to poor attention on their health during pregnancy. Society and families tend to receive when their pregnant women are in an emergent childbirth and PC [10].

In academic field, a wide range of studies on pregnant women's perception of pregnancy, childbirth, and PC have been conducted by students, lecturers, researchers for the past two decades. Based on previous survey, studies on pregnant women's perception comprised three figures among others: Studies on factors influencing pregnant women's perception of pregnancy, studies on factors influencing pregnant women's perception of childbirth, and studies on factors influencing pregnant women's perception of PC/bleeding [11], [12], [13]. Many studies on factors influencing pregnant women's perception of pregnancy, childbirth, and PC have, indeed, been conducted, yet in fact, no comprehensive research on the same topics has been carried in developing countries.

This particular issue has been one of outstanding maternal health topics in many researches and scientific articles. Therefore, this study uses quantitative as well as qualitative meta-analysis approach to identify themes on perceptions of pregnancy, childbirth, and PC based on the previous studies. The themes deal with what follows: 1) Pregnant woman's socio-demography; 2) knowledge, attitudes, and practices during pregnancy treatment; 3) the search of alternative pregnancy treatment beyond health officers (access); 4) Access to health service; and 5) mental health problems during pregnancy, childbirth, and PC.

Literature review is a literature research (through literature identification), explicit (goal identification, materials, and methods) and development (in research methodology and conclusion). The strong points of literature review are valid findings and easily applicable throughout the previous studies at a specific phenomenon [14]. Research with the literature review approach aims to identify factors influencing pregnant women's perception of pregnancy, childbirth, and PC in developing countries.

Materials and Methods

The following synthesis is to reply a question: "Which factor influences pregnant woman's perception of pregnancy, childbirth, and PC in developing countries?".

The approach applies the principle of systematic review to identify, to extract, and to synthesize data to acquire knowledge of pregnant women's perception of pregnancy, childbirth, and PC.

Comprehensive search strategy of qualitative and quantitative journal articles have been conducted. In addition, electronic database search such as database Science Direct, PubMed, Elsevier (SCOPUS), Springerlink, and Google Scholar was carried out in January 2021. During the literature, the following activities were also conducted: Search, keywords, terminology, phrases such as: Regnant women's perception of pregnancy, childbirth, and PC; sociodemography, knowledge, practice, attitudes, culture, religion, belief, taboo foods, supranatural, mental condition, and traditional practices influencing pregnant women's perception.

Even though the article search was not limited on languages, articles with international language (English) were on the top priority. In addition, the articles are originally based on quantitative as well as qualitative research focusing on antenatal, intranatal, and postnatal periods in developing countries. Thus, the articles obtained from database will then be sent to software Mendeley literature with deleted duplication.

Literature review steps use Preferred Reporting Items for Systematic Reviews and Meta-analyses (PRISMA) method as seen in the following diagram (Figure 1).

Results

Literature search from five chosen databases resulted 2474 articles. The articles were then sorted based on titles, abstracts, and keywords, and 874 articles were obtained with the following details: 52 totally unaccessible articles, 160 potentially reprocessed articles, 662 out-of-inclusive criteria unpotentially reprocessed articles.

The articles were then sorted based on overall texts with 19 potentially reprocessed articles and 142 out-of-criteria and unpotentially reprocessed articles. Thus, 19 articles are relevant to this study comprising seven quantitative articles and 12 qualitative articles [8], [11], [12], [13], [15], [16], [17], [18], [19], [20], [21], [22],[23], [24], [25], [26],[27], [28].

The 19 articles are in line with the stated objectives and themes as shown in Table 1.

Tables 1-4 shows that most researches were conducted in medical facilities in which 100 respondents work for quantitative research and approximately 8–94 respondents work for qualitative research on pregnant women's perception of pregnancy, childbirth, and PC.

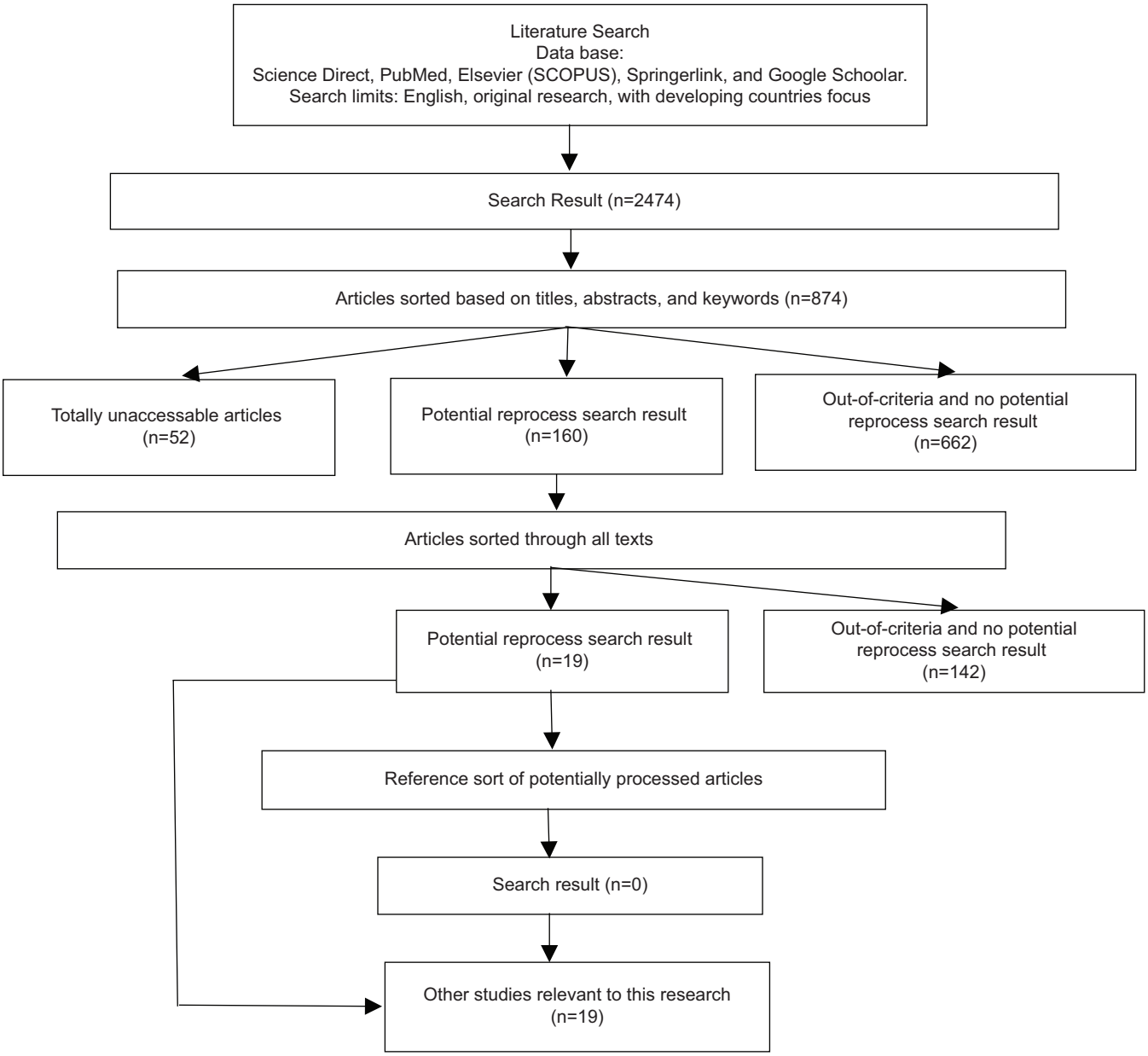

Figure 1: PRISMA flow diagram

Table 1: Characteristics of the studies included in this literature review

Author and Year	Region	Research site	Type and Research Design	Respondent	Pregnant Women's Perception		
					Pregnancy	Childbirth	PC
Van Toan *et al*. (2020) [29]	Hanoi, Vietnam	Medical Facilities	Quantitative Cross Sectional	1309	√		
Turner *et al*. (2017) [23]	Cambodia	Medical Facilities	Qualitative	58	√	√	√
Chakona and Shackleton (2019) [8]	South Africa	Community	Mix-Methods	22494	√		
Ahmed *et al*. (2020) [30]	Pakistan	Medical Facilities	Qualitative	25	√		
Buser *et al*. (2020) [12]	Zambia	Community	Qualitative	646	√	√	√
Munkhondya *et al*. (2020) [25]	Malawi	Medical Facilities	Qualitative	18	√		
Peprah *et al*. (2018)[31]	Ghana	Community	Qualitative	30	√	√	√
Kaiser *et al*. (2019) [27]	Zambia	Medical Facilities	Quantitative Cross sectional	167	√		
Annoon *et al*. (2020) [32]	Ghana	Community	Quantitative Cross sectional	300	√		
Almalik and Mosleh. (2017) [28]	Jordan	Medical Facilities	Quantitative Cross sectional	150	√		
Liamputttong *et al*. (2005) [15]	Thailand	Community	Qualitative	30	√	√	
Jo Hunter-Adams (2016) [16]	South Africa	Community	Qualitative	23	√		
Zamani *et al*. (2020) [33]	Iran	Medical Facilities	Quantitative Cross sectional	165	√	√	
Hanlon *et al*. (2009) [18]	Ethiopia	Community	Qualitative	25		√	√
Nyakang'o and Booth (2018) [19]	Kenya	Medical Facilities	Qualitative evidence Synthesis	16		√	
Diana *et al*. (2018) [34]	Indonesia	Community	Qualitative	40	√	√	√
Abdollahpour *et al*. (2015) [13]	North East of Iran	Medical Facilities	Quantitative	358	√	√	√
Placek *et al*. (2017) [22]	South West India	Community	Quantitative	102	√		
El Hajj *et al*. (2020) [35]	Zambia	Medical Facilities	Qualitative	8	√		

Table 2: Pregnant women's Sociodemography

Sociodemography	Major findings
Age	Overall, pregnant women were not more than 25 years of age (66.6%)
Education	Most of pregnant women went to primary school (77.7%)
Occupation	The respondents (pregnant women) were mostly jobless; only housewives. (55.5%)
Income	The average incomes come from agriculture sector in which each country's incomes vary between 60–120 USD (72.2%)
Parity	Most respondents were primigravida—individual1st-time pregnant women (55.5%).

Discussion

The use of traditional and health treatment method such as leaves, wood skin, and plant roots (Turner *et al*., 2017), black tea, oregano, and other local herbs to reduce pain (Ahmed *et al*., 2020), navel treatment and PC (Buser *et al*., 2020), magic words and treatment pre-delivery process (Liamputttong, *et al*., 2005), herb consumption for pregnancy strength (Chakona and Shackleton 2019), clay and charcoal consumption (geophagia) (Jo Hunter-Adams, 2016) during pregnancy, childbirth, and PC has been conducted. In addition, the use of traditional herbs is for childbirth induction, to avoid childbirth complication in case of spouse's sexual affair, and to cure anemia (El Hajj *et al*., 2020).

Moreover, belief of taboo specific food during pregnancy, childbirth, and PC still exists in developing countries. Some food such as meat, fish, potato, specific fruit, beans, and eggs (Chakona and Shackleton 2019), squid, shrimps, pineapples, Ambarella, cauliflower, iced water, and instant noodles (Diana *et al*, 2018) perceivably enable pregnant women to give birth a huge baby, and, therefore, they are avoided. Furthermore, spicy food and other food which cause miscarriage are also avoided (Placek *et al*., 2017).

According to some literatures, pregnant women's perception of social supports during pregnancy, childbirth, and PC also plays a pivotal role (Zamani *et al*., 2020; Abdollahpour *et al*., 2015; El Hajj *et al*., 2020) In addition, poor knowledge also influences pregnant women's perception of pregnancy, childbirth, and PC (Liamputttong, *et al*., 2005; Nyakang'o, and Booth, 2018;), Education (Almalik and Mosleh 2017), and personal experience of previous health treatment also influence their recent choice (Peprah *et al*., 2018).

Most pregnant women made primary objection for pregnancy check-up, childbirth, or PC in health centers due to unaffordability and unaccessibility (Turner *et al*., 2017; Liamputttong, *et al*., 2005), depression, anxiety, and mental pressure (Van Toan *et al*., 2020; Munkhondya *et al*., 2020; Hanlon *et al*., 2009), uncomfortable experience (Ahmed *et al*., 2020; Peprah *et al*., 2018), no autonomy in decision-making (Nyakang'o,and Booth, 2018) and limited social supports (Annoon *et al*., 2020; Abdollahpour *et al*., 2015).

Hence, woman's knowledge of pregnancy, childbirth, and PC need to be improved especially in relation to traditional herb use, local culture, food considered to be taboo, modern health service either through advocacy, empowerment, or mediation. Furthermore, social supports also play a pivotal role especially in relation to health service choice. Social support improvement can be conducted through advocacy and atmosphere establishment.

Table 3: Pregnant Women's Perceptions of pregnancy, childbirth, and PC in developing countries

Author and Year	Major Findings
Turner *et al*. (2017) [23]	Some women have traditional belief during pregnancy and childbirth to take traditional herbs such as leaves, wood skins, and plant roots. Whereas, other pregnant women have now taken some modern medicine as parents and grandparents are remarkably tolerant of modern medicine use.
Chakona and Shackleton (2019) [8]	Practical belief of taboo food; pregnant women should avoid meat, fish, potato, ceratin fruit, beans, and eggs as they were said to give birth to a huge baby. Instead, they consume herbal to keep the pregnancy strong.
Ahmed *et al*. (2020) [30]	Home traditional herb use during pregnancy to reduce pains and pregnancy uncomfortability. Black tea was a popular herb, also oregano and other local herbs. They consume traditional herbs due to their dissatisfaction over medical treatment in the health services.
Buser *et al*. (2020) [12]	During pregnancy women should do regular medical check-up especially for infectious sexual problems. On the other hand, post-childbirth, they should do traditional baby protection rituals, traditional PC, and traditional navel treatment.
Peprah *et al*. (2018) [31]	Pregnant women expressed more positive attitudes and belief to traditional midwives than the modern ones. They believe (based on their experiences), traditional midwives are more friendly, more patient, more appreciative of personal autonomy, providing more comprehensive treatment during childbirth. The pregnant women will surely go to modern midwives when they suffer from complications.
Almalik and Mosleh (2017) [28]	Significant disparity comes up between pregnant women's education and the need of antenatal learning during pregnancy. When dealt with health coaching, they prefer consulting doctors to nurses or midwives.
Liamputttong *et al*. (2005)[15]	Pregnant women showed simple and humble knowledge and perception of pregnancy and childbirth, traditional childbirth practices have not yet vanished. Many taboos in practice and food consuming. Even surprisingly, many magic words and other magical practices were still in use pre-delivery.
Jo Hunter-Adams (2016) [16]	Pregnant women of Somalia, Congo and Zimbabwe usually consume clay and charcoal (geophagia) even during pregnancy. They will surely stop consuming the clay and charcoal when suffering from severe constipation.
Zamani *et al*. (2020) [33]	Perceived social supports by significant couple will likely influence women's childbirth process.
Nyakang'o, and Booth (2018) [19]	Knowledge, attitudes, practice, and experience of poor health-care service also their process of decision-making will obviously hinder pregnant women's selection of childbirth location.
Diana *et al*. (2018) [34]	The most forbidden foods for pregnant women are squid, shrimp, pineapple, Ambarella, cauliflower, iced water, and instant noodle. Whereas, suggested foods are corn, rice, skipjack tuna, tilapia, milkfish, egg, Moringa, apple, and coconut milk.
Abdollahpour *et al*. (2015) [13]	Meaningful correlation shows up between social supports and multiple pregnancy and pregnancy complication. In fact, multigravidas have lower social supports. In other words, social supports are significantly lower for unexpected pregnancy rather than expected pregnancy.
Placek *et al*. (2017) [22]	Pregnant women mostly experience like and dislike alteration of certain foods. Their like and dislike of spicy foods usually happen in the first trimester when they suffer from nausea and vomit. Women's belief of to-be-avoided foods (in relation to miscarriage) gives impact on their dietary habits during pregnancy.
El Hajj *et al*. (2020) [35]	The use of traditional herbs is for delivery induction, to avoid complication during childbirth especially when their spouses committed sexual affair, also to heal anemia. In addition, family members and religious leaders also have a pivotal roles for traditional herb use.

Table 4: Access, search of alternative health service and mental health problem during pregnancy, childbirth, and PC

Author and Year	Major Findings
Van Toan *et al*. (2020) [29]	Pregnant women with ADS will significantly contribute to premature childbirth with 3,1 times greater risk during BBLR childbirth.
Turner *et al*. (2017) [23]	Costly transport bill becomes the main obstacle when the pregnant women had to reach the health districts as they are far from where the pregnant women reside.
Ahmed *et al*. (2020) [30]	Uncomfortable and even bad experience during health treatments enable pregnant women and their family to conduct no more visits to health centers, unless in case of emergency. They prefer traditional practice for childbirth.
Munkhondya *et al*. (2020) [25]	Fear and anxiety during childbirth comes from personal psychosocial condition, family, and, and uneffective counseling on childbirth preparation during ANC and during poor ANC service.
Peprah *et al*. (2018) [31]	Pregnant women have better attitudes and belief toward traditional midwives rather than the modern ones. Based on their experience, traditional midwives are more familiar, more patient, and more appreciative to individual autonomy with holistic treatments. In addition, most traditional midwives live in accessible, affordable and 24-h open areas.
Kaiser *et al*. (2019) [27]	The only major problem in dealing with referral health services was their tardiness in decision making and to reach health centers.
Annoon *et al*. (2020) [32]	Due to inaccesible health centers, male's and ANC's involvement were irresistible. This will obviously improve ANC access service to provide comfortable atmosphere for couples.
Liamputttong, *et al*. (2005) [15]	Most women from isolated areas prefer traditional midwives to help them during childbirth process for its affordability and accessibility.
Hanlon *et al*. (2009) [18]	Mental pressure during childbirth and PC happens due to new-mother adaptation, exile for unwanted pregnancy (e.g., non-marital pregnancy), no autonomy and dependency to spouse (husband), fear of bad evil's threats for no specific ritual.
Nyakang'o, and Booth (2018) [19]	Most women feel no autonomy and personal ability to select childbirth locations. All decisions — the selection of childbirth location included — are made by the family.
Abdollahpour *et al*. (2015) [13]	Significant correlation comes up between social supports and multiple pregnancy. Thus, multigravida obtain limited social supports. Social supports for unwanted pregnancy are significantly lower than wanted pregnancy.

ADS: antenatal depression syndrome, ANC: Antenatal care.

Modifying factors and individual perception are closely related to individual behavior especially toward the use of health service during pregnancy, childbirth, and PC. Modifying factors such as knowledge, ethnicity, socioeconomics, and personality have a pivotal role especially toward the use of pregnancy treatment, childbirth, and PC in developing countries.

Cultural practices in the community are also one of the factors that must be considered in the care of pregnant and postpartum women. Cultural practices toward pregnancy, childbirth, and postpartum period are divided into supportive and harmful cultural practices. In some of these studies, it was found that cultural practices were obtained from knowledge, beliefs, perceptions, and actions taken by the community and birth attendants (shamans). In some studies, cultural practices that support pregnancy, childbirth, and postpartum period were not found. Almost all of them are cultural practices that endanger pregnancy, childbirth, and the postpartum period, for example, pregnant women and postpartum women are prohibited from eating meat, fish, vegetables, and fruits. Whereas, pregnant women should be increase their nutritional intake, including protein, fat, vitamins, and minerals for the health of the mother and fetus. Likewise with postpartum mothers.

Individual believes mostly discussed in developing countries are *perceived barriers.* Whereas, *Perceived susceptibility to* and *severity of disease, perceived benefits, perceived self-efficacy,* and *perceived threat* to use health treatment during pregnancy, childbirth, and PC have rarely been discussed. Otherwise, for variable of *cues to action*, external *cues to action* has been frequently discussed. External variable of cues to action of personal experience and from the information of neighborhood/family with local belief and habits are supportive to health service.

Hence, *ethnicity, socioeconomics,* and *knowledge* have significant impacts on perception and *individual behavior* as confirmed by this particular research. Nevertheless, no specific study is on the influence of *modifying factors* toward *individual behavior* and *cues to action*.

Conclusion

Factors which influence pregnant women's perceptions, practice, and access of pregnancy, childbirth, and PC in developing countries are local culture in relation to traditional medical herbs and method, taboo (forbiden) food, knowledge, distance, education, experience, mental stress, no decision-making autonomy, and social supports. Thus, comprehensive research on the influence of *modifying factors* of *individual behavior* and *cues to action* needs to be carried out.

Ethics approval and consent to participate

Not applicable

Human and animal rights

No Animals/Humans are used for studies based in this research.

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