

## Decision Making Behaviour Related to Wife's Reproductive Health in Bidayuh Men in Rural Part of East Malaysia

Siti Khadijah Ahmad Tajuddin<sup>1</sup>, Khadijah Shamsuddin<sup>2</sup>

<sup>1</sup>(Sarawak Health State Department, Malaysia)

<sup>2</sup>(Department of Community Health, Universiti Kebangsaan Malaysia Medical Centre, Malaysia)

---

**Abstract:** *The purpose of this study was to explore factors influencing Bidayuh men's decision making of their wives' reproductive health. Twelve married Bidayuh men aged 24-50 years who resided in rural villages in the Kuching Division, Sarawak were interviewed face-to-face. Each in-depth interview was recorded, manually transcribed and translated into themes. Perceptions on the duties or responsibilities as husband or head of family, immediacy of problems faced, as well as personal, financial and experiential considerations were reported as determining factors in their decision making. The decisions related to financial and marital problems including the use of family planning will be made by the husband. Men relied heavily on experience before making a decision. For complicated health issues, most of their decisions depended on the doctor's opinion. Cultural influences do play an important role as the views of the elders were still taken into account. Men should be made partners in improving maternal health. Rural men's involvement in women's healthcare should be promoted through a more rational and effective decision making. This can be done by providing the right information and support for men.*

**Keywords:** *decision making, healthcare, men, rural, wives*

---

### I. Introduction

During recent times, it has been observed that rural communities who live far from the bustle of the city, have problems to enjoy perfect health due to lack of health facilities, doctors and services from clinical specialists. There were studies which found that accessibility to health services is one of the factors that result in a difference in health status between rural and urban communities [1,2,3,4]. Improving the health of rural communities, particularly high-risk women are important for any country to achieve its MDG (Millennium Development Goals) for reducing the maternal mortality ratio or MMR and beyond MDG after 2015. Maternal mortality ratio in Malaysia has declined from 540 per 100,000 live birth in 1950s to 28 per 100,000 in 2010 [5] due to the improvement in accessibility and availability of health services targeting women and children. Sarawak is a state located in the eastern part of Malaysia. The maternal mortality ratio in this part of Malaysia has reached 40.0, 28.4 and 21.3 per 100,000 live births in 2007, 2009 and 2010 respectively [6]. And, the numbers has declined at a faster rate over the years as compared to the national level. However, the ratio had an increase among non-Malay ethnic specific group [5,7].

Women in rural areas have less autonomy in decision making with regard to their own health when compared to urban women [8]. Even WHO also highlighted that "societal norms that limit women's mobility, or that require that women obtain the consent of a male family member before seeking health care, can dangerously delay, or even prevent, women's access to lifesaving care in the event of an obstetrical emergency"[9]. Furthermore, policies and reproductive health programs mostly focus on women rather than men. The need to involve men in maternal health care programs is important because they are the key decision makers in the family. These include decisions on health care for women, and family planning such as family size and time of pregnancy [10]. Therefore, men should be partners for improving maternal health, especially in underserved communities dominated by men as highlighted in the declaration made during the International Conference on Population and Development (ICPD) in Cairo, 1994 [11] and the 4th World Conference on Women in Beijing [12] which considered the need to involve men in the promotion of sexual and reproductive health as significant. Programs involving men have been implemented in many developing countries and it has been successful in improving maternal health[13].

Information from studies on health-related decision making behaviour among men may help to improve decision on risk communication strategy by policy makers. Encouraging men to engage in women's health care will increase their understanding and provide a strong support for intervention program to improve maternal health care. Men can be involved by increasing their awareness in identifying women with complications during pregnancy and this will facilitate the decision to seek treatment, in addition to their support in providing transportation and undertaking the financing costs for health care. According to the report on enquires into maternal deaths in Malaysia from period 2006-2008, most deaths occurred postnatally and the number who died at home had also increased during that period of time [7]. Therefore, husband and

closerelatives play an important role in recognizing early warning signs to facilitate prompt decision making and thus, urgent referral to health facilities.

Morison in his study regarding male involvement in decision about parenthood among white African men and women observed that childbearing was considered as something normal and a non-issue thing [14]. Therefore, men were reported to make relatively passive decisions concerning parenthood. In contraceptive decision making, men were reported as less involved in deciding which method to use and showed reluctance to discuss about contraception [14]. Their commitment in contraceptive decision making also relied on the seriousness and length of their relationships with their partner. In addition, in many Asian countries, people do not talk about their sexual needs and sexual relationships even among married couples. It was thought that both cultural and religious factors contribute to their behaviour [15]. Based on an Iranian study by Roudsari et al., men's poor knowledge on family planning and high failure rate in contraception was actually due to the fact that their role in reproductive health was neglected [16].

### **1.1. Decision Making**

Decision making is described as a dynamic process that involves complex interrelated mechanisms between brain cells making it a very unique characteristic in human. Studies involving decision making is often associated with neuroscience, psychology, economics, statistics, political science and computer science. And, the elements that are often used in decision making are referred to as consultative or discussion and mutual agreement [17]. Various theories and models were put forward to explain the mechanisms and factors involved in this complex process. Put simply, decision making can be interpreted as a process of thinking that involves choosing from the many options available to achieve a certainty[18]. Hall et al. concluded that previous studies have stated three levels of analysis that are involved in decision making namely general, family and morality [19].

For decision making that occurs in a family, Scanzoni & Szinovacz found that family relationship and gender play an important role [20]. Other factors such as experience, the characteristics of the family, intervention by outsiders and age also influence decision making. If viewed from a moral angle, Kohlberg associated justice element [21], while Gilligan put personal relationship and love as determinant in decision making [22]. Our decision is also affected by the consequences of the decisions that we have made in the past. Humans are also found to have the ability to balance and evaluate their past experiences in which they are used as guidance [23].

There are two basic approaches to decision making as described by Zeleny which are the outcome-oriented and process-oriented [24]. To understand the processes involved in decision making concerning health care assistance, many factors need to be considered. Zeleny had put forward 16 steps in the decision making process. Meanwhile, the mechanism of decision making can be based on two models as described by DeLosh and Merritt, namely normative models and descriptive models[25]. Normative models use statistical rules to determine the outcome of which will bring profit and which will bring loss. It predicts decision whether rational or otherwise, assuming that people will behave as a statistician. Meanwhile, descriptive model was found to be more suitable as they try to explain how a person makes a decision without evaluating whether the decision is optimal and rational or otherwise. Another theory that attempts to explain decision making processes, particularly those involving health is dual processing theory [26]in which they emphasize the cognitive processes involved. Two systems known as systems I and II distinguish this theory with other theories which only involves a system of human thought alone. System I is more towards intuition, automatic, experiential, narrative and influenced by feelings. Meanwhile, system II is more towards analysis, verbal, full of rigor and logical.

Lack of awareness about the importance of prenatal care and restrictions by husband for a woman to get health care were major obstacles in the use of prenatal care in many developing countries [27,28]. Women in need of modern health services for themselves and the children have to face delays caused by their husbands [29].In Malaysia, we still think that our society is controlled or dominated by men. However, the dominance of men in the field of employment, economy, education and politics has long been recognized. For most people, men were regarded as the main pillars in a household. They were given a key role in managing financial, health and other matters [30]. Dominant attitude shown by many men as Matrika found in her study which stated that a lot of husbands ordered their wives to use family planning, husbands also choose family planning techniques and discontinued its use, and in seeking antenatal care facilities [31]. These lead to women not practicing family planning even if they did not want any more children because of the objections from their husbands [32].As a result, men are often seen as an obstacle to the practice of family planning.

A study conducted by Gwendolyn et al. revealed that men actually have limited knowledge about infant mortality, lack of a sense of responsibility for pregnancy, and have the perception that stress, age of the mother and the health care system were the cause of complications that occur during the birth of their child [33]. Orji et al. found through their research that men were the primary decision makers when their wives were

pregnant and the wife was only responsible for providing support to her husband[34]. The study also showed that only a small number of men was willing to accompany their wives to the antenatal clinic. According to study by Carter & Speizer, men put work factor as the main barrier for them to get involved in the health care of their wives during pregnancy and after giving birth[35]. Although Orji et al. found that their knowledge about danger signs during pregnancy was high but, most of them leave it to the women themselves to make decisions during obstetric emergencies [34].

However, prior studies have also shown that male involvement can actually help prevent unintended pregnancies, promote the use of family planning services and raise awareness of safe maternal care [36]. Their involvements also have a positive impact on the knowledge, the role of husband and father as well as help in health-related decision-making process [37]. Even so, there are also a number of studies done in other countries such as India, Pakistan and Africa, where the men themselves served as an obstacle to their wives' accessibility to health services. This is due to the right of husband in decision making in matters of marriage, including matters related to health [38, 39, 40, 41, 42, 43, and 44].

To the best of our knowledge, there are paucities of studies on health-related decision making particularly among different ethnic groups in Malaysia as each ethnic groups have their own unique identities based on their culture. The main aim of the study was to explore the factors that influence health-related decision making among Bidayuh men who resided in rural areas.

## **II. Methods**

Sarawak is one of the states in Malaysia, located in the Borneo Island with Kalimantan and Brunei. It is the largest state in Malaysia with a population of over 2.6 million. It is a multicultural state with over 27 ethnic groups. Kuching has the highest population in the state and it is divided into 3 sub-districts. And, Bidayuh people are one of the major ethnic groups that are commonly found in Kuching. They are also referred to as Land Dayak. The Bidayuh people are among the biggest indigenous group in Sarawak other than the Iban and the Malay. They consist of six main dialectical subgroups Bau-Bidayuh, Biatah-Penrissen, Bukar-Sadung, Padawan-Sembaan, Rara and Salako. In the past, they used to live in longhouses but, in recent years they tend to live in single houses and abandoned their longhouses unlike the Iban people. However, they still retained their traditional culture despite economic and educational development in their community.

### **2.1. Subjects**

This is a qualitative exploration study using in-depth interview. A sample of married Bidayuh men aged between 18 and 50 years old who settled in rural villages in the sub-district of Siburan and Padawan, Kuching, Sarawak were chosen to participate in the study. Respondents were selected from randomly selected villages based on recommendations made by the head of village. The findings in this study cannot be generalised to the Sarawak population as the respondents were chosen purposively. Snowball sampling technique was used to obtain the number of respondents until saturation point was reached. The number of respondents for in-depth interviews was determined at the end of the study when no new information was obtained [45]. Before the interview, respondents were first briefed about the study and consent was obtained. Interviews were conducted on the date, time and place agreed upon by the respondents. Respondents were also given the freedom to withdraw before or during the interview.

### **2.2. Instrument**

The individual in-depth interview was through face to face conversation between the researcher and respondent to understand in detail their perspectives, experiences or situations described by the words that come from their own mouths. The interviews were guided by a protocol which consists of 12 open-ended questions. The interviews were conducted in Sarawak Malay language, audio-taped, transcribed manually and translated into English language. Each interview took on average 1 to 1.5 hours or 60 to 90 minutes.

Respondents were asked about their role as husband and their thoughts about what head of family should be. Their opinion regarding male dominance and situations where men should be the main decision maker was also obtained. They were also asked to give their opinion on how they handled situations and made their decisions in the event of any disagreement with their wives and in the event of any complications during their wives' pregnancy. Other aspects such as traditional practices and beliefs associated with pregnancy and childbirth among the Bidayuh communities, as well as their views on health services in terms of cost, payment, logistics and quality were also included in the interview. During the interviews, they were also given the opportunities to make comments and ask questions about any aspects of their wives' health and the health services in general.

Each interview was transcribed and translated into encoded data manually. Cognitive map was used to translate the interviews into diagram form easily understood by the researcher. All the interviews were analysed together for this purpose. Each category and content of the interview was later designed to be a theme concept.

This study had received approval from the Institutional Research and Ethics Committee. Before the interview was carried out, both verbal and written consent were obtained from the respondents. All conversations were recorded using a digital voice recorder and all information provided was treated as confidential and used for research purposes only.

### III. Results

A total of 12 men aged between 24-50 years old were interviewed in this study. They were presently married and have 1 – 6 children. Five of the respondents were married for less than 10 years while 7 respondents have been married for more than 10 years. Among them, there were 8 Christians and 4 Muslims. Most of them claimed that decisions related to their wives' healthcare were made based on agreement with their wives. In terms of employment, the men were working as labourer, mechanic, machinery driver, bank clerk and laboratory assistant. Only one person was working with the government as a school warden. The demographic characteristics of the respondents involved in the in-depth interviews are shown in Table 1.

**Table 1:** Demographic Characteristics of Respondents Involved In the In-Depth Interviews (N= 12)

Case No.	Age	Religion	Employment	No. children	Marriage duration
I	28	Christian	Private company	1	3
II	50	Christian	Laboratory Assistant	5	24
III	44	Christian	Bank Clerk	3	23
IV	37	Christian	Labourer Farmer	4	11
V	46	Islam	Labourer	6	23
VI	36	Islam	Labourer	2	6
VII	24	Christian	Mechanic	1	3
VIII	50	Islam	Farmer	6	21
IX	33	Islam	Machinery Driver	2	5
X	50	Christian	School Warden	6	27
XI	48	Christian	Machinery Driver	4	20
XII	40	Christian	Bank Clerk	3	8

Respondents had no difficulty in talking about their roles and responsibilities as husband. In addition, they also seemed comfortable discussing about women's health-related problems. However, the notion of "decision making" was like an alien subject for them that took them some time to figure out what they want to say. Moreover, respondents in this study reflected decision making as something that was routine and straightforward. But when focusing on women's health-related issues, different views were reported as will discussed further.

#### 3.1. Perceptions on duties and responsibilities as husband or head of family

There were men who felt the need for them to be dominant in certain matters to prevent the occurrence of conflicts and arguments between couples. In their opinion, one should be more dominant in order to reach a decision. Generally, men shared these opinions as expressed by case III and IX.

"If it is more on the wife or 50/50, it will be difficult to get an answer...If I want this, she wants that. If I want that, she wants this. If possible, we as husband, you are more on...60/40 more on the husband...If 50/50, most of our answer is incorrect. If there is a conflict, eventually the ending can be positive or negative...may turn into an argument" (Case III, 44, father of three).

"I think it is better than the wife controlling the husband. It is the husband who supposed to take control because men are the leader as long as things are not on the wrong track" (Case IX, 33, father of two).

These men also felt that the role of a husband is to be responsible and able to solve problems. They adhered to their principle that husband should not share their marital problems with other people. And, these might be due to cultural or religious influence as supported by statements from case X and XI.

"We prioritized on religion, moral. Moral values are important, if not, we will be lost...at least we can control ourselves...follow the Christian way, not that we abandoned it but the way we do it...more influenced by religion, cultural influence is less" (Case X, 50, father of six).

"Take religion as an example. That is the reason why accurate decisions can be made. Put priority on religious element" (Case XI, 48, father of four).

However, traditional beliefs and practices were not so dealt with and the impression given by the respondents through the interviews seemed to indicate that this factor did not bring such a strong influence in their lives. These practices are followed simply as their way of showing respect to their elderly.

"It is not that we're really practising but it is because our elderly said so, don't do this, so we don't do it" (Case V, 46, father of six).

"Not really believe in it. Just follow. In the middle...just follow" (Case XII, 40, father of three).

Meanwhile, the problems in the household were treated as though the burden should be borne by the men alone. They felt ashamed to share family problems, especially financial with others. Thus, husband's role was considered as very heavy and challenging.

"One needs to be responsible, so don't become like if there is some problem you directly tell other people. So...if possible be the one who solve the problem...calmly, we tried to reassure the situation. If there are problems, we have to try solving them by ourselves" (Case II, 50, father of five).

"Everything that happens at home is my responsibility...I don't ask from other people. Sometimes I have problems with cash, I think to myself how to make a living" (Case IV, 37, father of four).

The study found that most of the decision making was based on men's awareness of his duties and responsibilities as husband and head of family. Therefore, they felt it was very important for them to be dominant in matters related to their family. Their dominance as they believed was also important to maintain harmony and unity in the family. There was also a view that men should have control over their wives in order to avoid the occurrence of chaos and disruption in the household. This opinion was supported by cultural customs that exist in most societies and religious claims in which a wife should be obedient and submissive to her husband except in things that can cause harm to the wife.

### **3.2. Personal, financial and experiential consideration in decision making**

The study found that among the Bidayuh men interviewed, most of the health-related decision making was done collectively with their wives. Only a small number of men reported that they were the main decision maker. In general, for couples who are young age and just married a few years, they tend to make decisions together. And, they also accepted the opinions of elders especially the mother as their way of showing respect for them who should not be objected to literally. Even so, in issues involving health, decisions that were deemed as inappropriate would be debated among the close family members in the interests of their wives and children. Therefore, the influence of outsiders would be set aside as it contradicted to their stance. Thus, it can be concluded that the decision did not depend on others. Most lay men were the primary decision makers in matters related to family finances, household and health problems. Meanwhile, the house chores would be handed over to the wives.

In family planning, men are still the one who made the decision including determining contraceptive techniques and number of children. Despite their wives' wishes, the final decision remains in the hands of the husband. For this matter, men made their decisions based on their intuition as they were very concerned about the side effects of the medications on their wives' health. This finding differed from a study by Finnell where men involvement and decision making on family planning were considered as optional and women were found to be more in control of their reproductive needs [14].

"I told her not to take the medication again...I told her to stop, but don't force her. No family planning just act normal...that is why we need to know certain way to be with our wife. Now I keep my distance with my wife. She sleeps with the grandchildren and my daughter, I sleep in the bedroom" (Case V, 46, father of six).

"For me, 3 or 4 are good enough. But for my wife, she wants 10. We will not be able to afford that many children. We need to follow our own ability. If I have a permanent job, then it is okay. But, I don't. So, 3-4 are enough. If too many, it will be difficult" (Case VI, 36, father of two).

However, the decision making related to complicated health risk would depend on the doctor's opinion. Furthermore, men felt quite difficult to make their own decisions, especially in making a choice between his wife and child as described by case II. For that reason, doctor or specialist opinion would be sought out.

"We asked about the child, 60 or 70% is considered difficult to be saved. I asked the doctor to make the decision. If the doctor is unable to save the child, what else can be done? The same goes for the wife, if 70-80 chances of cannot be save, what can be done, we just accept it" (Case II, 50, father of five).

Pressure from the community or outsider was not a major factor because the negative elements of the traditional culture were no longer practiced. Surrounding culture also heavily influenced by the development and modernization. Furthermore, the religious elements considered as more important in their lives.

It was found that most men did not encourage their wives to intervene in matters affecting their jobs. This opinion was also shared by case II in which he also felt that a decision would not be reached if too many people intervened.

"Depend on the situation, if the work is for men, supposedly, he is responsible, don't involve the wife. If she wants to be involved, she can but better not. It will make things harder. We will end up neglecting the work because we do not do it whole heartedly if there is too much interference" (Case II, 50, father of five).

Some men felt that they should be the primary decision maker in the family because men are responsible in providing financial support for the family. Financial stability was also the influential factor that contributes to Canadian men's childbearing intentions as reported by Roberts et al. [46]. This gives greater role for men to control the affairs of the household. Since most of the wives of the respondents did not work, then

their husbands contribute fully to the economic resources of the family. In addition, most of the men in rural areas work as farmers or labourers who have a limited income. Very few of them have a regular source of income as reported by:

“Most importantly, such as financial I am the one who controls it...because my wife is not working. So, there are things that she doesn't know. For me, husband's role should be 60-40. 60-40 more on my side because I feel I am the one who bears the burden not her” (Case III, 44, father of three).

But there were few wives who also working in order to provide extra income. Even so, the husband still took more responsibility in providing for the family.

“My salary is used to pay for the shopping and loan. My wife also pays for it. I pay more because my salary is higher than she is. She is just helping” (Case VI, 36, father of two).

Most husbands were found dominant in making decisions involving financial as men are responsible to support expenses for their children and wives. This was explained by the Resource Theory [47] which described that the male dominance in the household was based on economic resources and employment status provided by the husband to the family when compared with a non-working wife. But, this theory might not be applicable among communities that still greatly influenced by their culture as reported by Shu, Zhu and Zhang in a study conducted in urban China [48] as even when the wives contribute greatly to the family income, they are still unable to bargain for more power in making decisions.

### **3.3. Experiences**

Most of the respondents also referred to their experiences before making any decision. They were also influenced by the experiences of others. Most of them preferred asking opinions from their elders such as mother or mother-in-law, father or father-in-law, siblings and even, friends.

“Ask parents...they have more experiences, we learn from experiences...cannot directly make decision...need to think first” (Case XII, 40, father of three).

“Assist in terms of physical, advice, financial. But, not that often...sometimes” (Case VII, 24, father of one).

The experience gained from complications during their wives' first pregnancy and childbirth also helped in improving their knowledge of the risks of pregnancy and childbirth preparation. For the husband who had this kind of experience, they knew that they were doing the necessary preparations in order to avoid the occurrence of unwanted complications towards their wives and child. Therefore, they felt more confident to make such a decision.

“We refer to the antenatal card...because within that 2 weeks, she will feel pain on-off, so we need to observe that...most importantly, we look at the report, when is her appointment date, need to check again” (Case II, 50, father of five).

“Usually I discuss with my wife. During the first miscarriage...I do not know what to do because I don't have any experience...the second time, I know already” (Case I, 28, father of one).

## **IV. Conclusion**

From the in-depth interviews conducted, some of the determinant factors in decision making have been identified that is the perception of the duties or responsibilities as husband or head of family, immediacy of problems faced, as well as personal, financial and experiential considerations. This is consistent with the view of Hodgetts and Chamberlain who said that the behaviour of men is more influenced by internal factors than women who are more influenced by environmental factors [49]. Other factors mentioned which may influence decision making are ethnicity and marital status [14]. However, this study did not include other ethnic groups.

Pease gave his view that it is logical for man to control his wife because they feel their position is threatened due to the competition that exists between couples [50], especially if their wives have their own sources of income [51]. The decisions were also determined by the issue or problem faced. As far as finances, child welfare and healthcare, men would be the one who gave the final decision. However, women were only given the right to make decision concerning minor issues in the household. A decision related to the use of family planning was also discussed. However, the wives would usually submit to the husband to decide. These findings contrast to the practice of women in developed countries where they are able to make their own decisions without having to consult with their partner [14]. In the issue of family planning services as well, even though the husband did not expect them to have another child, the wife were not encouraged to use any modern family planning techniques despite the advice of doctors and nurses at the clinics. The main reason for their concern was the side effects reported by their wives after taking contraceptive pills. Therefore, most husbands practiced traditional methods even though the chance of getting pregnant is high [14]. This finding was not something new, as there were studies that linked attitude towards side effects of family planning techniques to its use [36,52].

In financial terms, it is one of the determining factors in decision making as shared by Soméet al.[53]. Although there were men who reported that they should be dominant because of the financial burden they had to bear, but not surprisingly most men were willing to sacrifice by prioritizing the needs of their wives and children.

Through this study, no doubt there were men who made their decisions intuitively even in matters involving health where experiences was their guidance apart from practices / habits and the importance of the issue for them [54]. Most of them did not want to depend on others to make decisions except in certain cases such as emergencies and disease complications that they were not able to overcome, because some of these men considered outsiders' influence would only cause confusion and increase uncertainty for them [55]. Surprisingly, a mother's view was deemed as important among the Bidayuh men. This finding was also shared by Some et al. as according to them, mothers were seen as a model among wives and a good source of reference for matters related to women's health [53].

One of the challenges in reproductive health is communication, especially when decisions in the family are depending upon men. Involvement of men can be implemented in identifying women with complications during pregnancy and facilitate the decision for treatment in addition to providing transportation and financing costs for healthcare. Therefore, it can be said that among the many nations of the world, men play an important role in a woman's ability to get healthcare, but they were not given information about the reproductive health needs of their wives. Sternberg and Hubley reviewed the literatures on the intervention programs involving men and they found that many men were in fact interested in their family welfare and wanted to be involved in programs related to sexual and reproductive health promotion [56]. Health promotion strategy will not achieve its goals if the health authorities continue to ignore the importance of men to participate as a target group before making any program.

## References

- [1]. S. Belton, B. Myers, and F.R. Ngana, Maternal deaths in eastern Indonesia: 20 years and still walking: an ethnographic study, *BMC Pregnancy and Childbirth*, 14(39), 2014.
- [2]. A. Amano, A. Gebeyehu, and Z. Birhanu, Institutional delivery service utilization in Munisa Woreda, South East Ethiopia: a community based cross-sectional study, *BMC Pregnancy and Childbirth*, 12(105), 2012.
- [3]. A.A. Fikre, and M. Demissie, Prevalence of institutional delivery and associated factors in Dodota Woreda (district), Oromia regional state, Ethiopia, *Reproductive Health*, 9(33), 2012.
- [4]. W.B. Weeks, L.E. Kazis, Y. Shen, Z. Cong, X. S. Ren, D. Miller, A. Lee, and J. B. Perlin, Differences in Health-Related Quality of Life in Rural and Urban Veterans, *Am J Public Health*, 94, 2004, 1762–1767.
- [5]. H. Yadav, A review of maternal mortality in Malaysia. *IeJSME*, 6 (Suppl 1), 2012, S142-S151
- [6]. [SHD, Investigation Report on Maternal Deaths, Family Health Development Section, Sarawak Health Department Malaysia, 2011
- [7]. MOH, Report on the confidential enquires into maternal deaths in Malaysia 2006-2008, Division of Family Health Development, Putrajaya, Ministry of Health Malaysia)
- [8]. D.R. Acharya, J.S. Bell, P. Simkhada, E.R. van Teijlingen, and P.R. Regmi, Women's autonomy in household decision-making: a demographic study in Nepal, *Reproductive Health*, 7(15), 2010.
- [9]. WHO, 'En-gendering' the Millennium Development Goals (MDGs) on Health, Department of Gender and Women's Health: World Health Organization, 2003)
- [10]. USAID, Men Key to Reducing Maternal Deaths in Developing Countries, U.S. Agency for International Development. Washington D.C, 2010
- [11]. UNFPA, Report of the international conference on population and development, New York, 1994
- [12]. United Nations, Nations U: Report of the fourth world conference on women, New York, United Nations, 1995
- [13]. T. Morison, Heterosexual Men and Parenthood Decision Making in South Africa: Attending to the Invisible Norm, *Journal of Family Issues*. 2013, DOI: 10.1177/0192513X13484271
- [14]. J.L. Fennell, Men Bring Condoms, Women Take Pills: Men's And Women's Roles In Contraceptive Decision Making, *Gender and Society*, 25, 2011, 496-521.
- [15]. A.T. Obaid, Religion and Reproductive Health and Rights. *Journal of the American Academy of Religion*, 73(4), 2005, 1155-1173
- [16]. S.H.R. Roudsari, R. Sherafat-Kazemzadeh, M. Rezaeie, M. Derakhshan, Reproductive health knowledge, attitudes and practices of Iranian and Afghan men in Tehran province, *Eastern Mediterranean Health Journal*, 12 (6), 2006, 862-872
- [17]. J.I. Gold, and M.N. Shadlen, The neural basis of decision making, *Annual Review of Neuroscience*. 30(1), 2007, 535-574.
- [18]. Business Dictionary online, <http://www.businessdictionary.com/definition/decision-making.html> [2 September 2012].
- [19]. P. Hall, J.T. Sanford, S. Alice, and A.S. Demi, Patterns of Decision Making by Wives of Patients with Life Threatening Cardiac Disease, *Journal of Family Nursing*, 14, 2008, 347.
- [20]. J. Scanzoni, and M. Szinovacz, Family decision-making: A developmental sex role model (Beverly Hills, CA: Sage, 1980)
- [21]. L. Kohlberg, and R.H. Hersh, Moral development: A review of the theory, *Theory Into Practice*, 16(2), 1977, 53-59
- [22]. C. Gilligan, *In a different voice* (Cambridge: Harvard University Press, 1993)
- [23]. T.E.J. Behrens, M.W. Woolrich, M.E. Walton, and M.F.S. Rushworth, Learning the value of information in an uncertain world, *Nature Neuroscience*, 10(9), 2007, 1214-1221.
- [24]. M. Zeleny, Multiple criteria decision making, European Institute for Advanced Studies in Management (McGraw-Hill Book Company: New York)
- [25]. E.L. DeLosh, and P. Merritt, *Decision Making*, 1997-2000
- [26]. K. Mukherjee, A dual system model of preferences under risk, *Psychology Review*, 177(1), 2010, 243–255.
- [27]. B.T. Biratu, and D.P. Lindstrom, The influence of husbands' approval on women's use of prenatal care: results from Yirgalem and Jimma towns, South West Ethiopia, *Ethiopian Journal of Health Development*, 2006.

- [28]. A.R. Roy-Raterta, The role of NGOs on integrating gender in RH programs and policies: Insights from the family planning organization of the Philippines (FPOP), Reproductive Health Advocacy Network (RHAN), NGO Sectoral Council, Phil. National Anti-Poverty Commission, Philippines, 2006
- [29]. P. Ngom, C. Debpuur, P. Akweongo, P. Adongo, and F.N. Binka, Gate-Keeping and Women's Health Seeking Behaviour in Navrongo, Northern Ghana, *African Journal of Reproductive Health*, 7(1), 2003, 17-26.
- [30]. R.A. McPherson, J. Tamang, S. Hodgins, L.R. Pathak, R.C. Silwal, A.H. Baqui, and P.J. Winch, Process evaluation of a community-based intervention promoting multiple maternal and neonatal care practices in rural Nepal, *BMC Pregnancy and Childbirth*, 10(31), 2010
- [31]. C. Matrika, Conjugal Power Relations and Couples' Participation in Reproductive Health Decision-Making: Exploring the Links in Nepal, *Gender, Technology and Development*, 10(2), 2006, 159-189.
- [32]. I. Kulu, Husbands as decision-makers in relation to family size: East-West regional differentials in Turkey, *NufusbilDerg*, 12, 1990, 41-64.
- [33]. P.Q. Gwendolyn, M.A. Euna, D. Austin, C. Keefe, C. Bernadotte, K. Scarborough, and D. Jeffers, High Risk Community-Men's Perceptions of Black Infant Mortality: A Qualitative Inquiry, *American Journal of Men's Health*, 3(3), 2009, 224-237.
- [34]. E.O. Orji, C.O. Adegbenro, O.O. Moses, O.T. Amos, and O.A. Olanrenwaju, Men's involvement in safe motherhood, *Journal of the Turkish German Gynecology Association*, 8(3), 2007, 240-246.
- [35]. M.W. Carter, and I. Speizer, Salvadoran fathers' attendance at prenatal care, delivery, and postpartum care, *Pan American Journal of Public Health*, 18 (3), 2005, 149-156.
- [36]. M. Drennan, Reproductive health: New perspectives on men's participation, *Population Reports Series J*, 46, Baltimore, Johns Hopkins University, Population Information Programme, 1998
- [37]. L.C. Varkey, A. Mishra, A. Das, E. Ottolenghi, D. Huntington, S. Adamchak, M.E. Khan, and F. Homan, Involving Men in Maternity Care in India, New Delhi, *Frontiers in Reproductive Health Programme*, Population Council, 2004
- [38]. A.O. Tsui, J.N. Wasserheit, and J.G. Haaga, Reproductive Health in Developing Countries: Expanding Dimensions, Building Solutions (Washington, D.C: National Academy Press, 1997)
- [39]. S.S. Bloom, A.O. Tsui, M. Plotkin, and S. Bassett, What husbands in northern India know about reproductive health: Correlates of knowledge about pregnancy and maternal and sexual health, *Journal of Biosocial Science*, 32, 2000, 237-251.
- [40]. N. Murthy, L. Ramachandar, and P. Peltó, Dismantling India's contraceptive target system: An overview and three case studies, in N. Haberland, and D. Measham (Ed), *Responding to Cairo: Case Studies of Changing Practice in Reproductive Health and Family Planning* (New York: Population Council, 2002) 25-57.
- [41]. T.O. Lawoyin, O.O.C. Lawoyin, and D.A. Adewole, Men's Perception of Maternal Mortality in Nigeria, *Journal of Public Health Policy*, 28, 2007, 299-318.
- [42]. E.J. Danforth, M.E. Kruk, P.C. Rockers, G. Mbaruku, and S. Galea, Household Decision making about Delivery in Health Facilities: Evidence from Tanzania, *Journal of Health Population Nutrition*, 27(5), 2009, 696-703.
- [43]. J.B. Kinanee, and J. Ezekiel-Hart, Men as partners in maternal health: Implications for reproductive health counselling in Rivers State, Nigeria, *Journal of Psychology and Counseling*, 1(3), 2009, 39-44.
- [44]. U. Senarath, U, and N.S. Gunawardena, Women's Autonomy in Decision Making for Health Care in South Asia, *Asia Pacific Journal of Public Health*, 21(2), 2009, 137-143.
- [45]. B.G. Glaser, and A.L. Strauss, A. L. The discovery of grounded theory: Strategies for qualitative research (New York: Aldine DeGruyter, 1967)
- [46]. E. Roberts, A. Metcalfe, M. Jack, and S.C. Tough, Factors that influence the childbearing intentions of Canadian men, *Human Reproduction*, 26(5), 2011, 1202-1208
- [47]. R.O. Blood, and D.M. Wolfe, *Husbands and wives* (New York: Free Press, 1960)
- [48]. X. Shu, Y. Zhu, and Z. Zhang, Patriarchy, Resources, and Specialization: Marital Decision-Making Power in Urban China, *Journal of Family Issues*, 2012, DOI: 10.1177/0192513X12450001
- [49]. D. Hodgetts, and K. Chamberlain, 'The Problem with Men': Working-class Men Making Sense of Men's Health on Television, *Journal Health Psychology*, 7, 2002, 269-283.
- [50]. B. Pease, (Re)Constructing Men's Interests, *Men and Masculinities*, 5, 2002, 165
- [51]. K. Leung, F. Li, and F. Zhou, Sex Differences in Social Cynicism Across Societies The Role of Men's Higher Competitiveness and Male Dominance, *Journal of Cross-Cultural Psychology*, 43(7), 2012, 1152-1166
- [52]. E. Cheung, and C. Free, Factors influencing young women's decision making regarding hormonal contraceptives: a qualitative study, *Contraception*, 71, 2005, 426-431.
- [53]. D.T. Somé, I. Sombié, and N. Meda, How decision for seeking maternal care is made - a qualitative study in two rural medical districts of Burkina Faso, *Reproductive Health*, 10(8), 2013
- [54]. T. Morken, I. Haukenes, and L.H. Magnussen, L.H. Attending work or not when sick - what makes the decision? A qualitative study among car mechanics, *BMC Public Health*, 12, 2012, 813
- [55]. V.A. Miller, M.F. Luce, and R.M. Nelson, R.M, Relationship of External Influence to Parental Distress in Decision Making Regarding Children with a Life-Threatening Illness, *J. Pediatr. Psychol*, 36(10), 2011, 1102-1112.
- [56]. P. Sternberg, and J. Hubley, Evaluating men's involvement as a strategy in sexual and reproductive health promotion, *Health Promotion International*, 19(3), 2004, 389- 396.