Developing Country Studies
ISSN 2224-607X (Paper) ISSN 2225-0565 (Online)
Vol.4, No.13, 2014 – Special Issue

Family Relations and Reproductive Health through Early Marriage for University Girls: A Comparative Study of Egyptian and Saudi Society

Samhaa Mohammed[1*] Sherif Houria[2]
1. Department of Home Management and Institutions, Home Economic College, Menofia University, PO box 32631, Quesna, Egypt.
2. Department of Home Management and Institutions, Home Economic College, Menofia University, PO box 32511, Shebin El Kom, Egypt.
* E-mail of the corresponding author: samhaa_3@yahoo.com
h_horia@yahoo.com

Abstract
This study examined the association between family relations and reproductive health, and showed the importance of family relations and some socio-economic characteristics in their contribution to improve reproductive health, which helps married girls at an early age to practice their life roles efficiently. Survey data drawn from the 400 girls (N = 200 in Egypt & 200 in Saudi Arabia). The measures of study were demographic data form for girls, family relations questionnaire and reproductive health questionnaire. Results indicated that there were positive correlation between family relations and reproductive health in Egypt & Saudi Arabia. The structure of family relations and reproductive health related to study type (practical and theoretical) revealed that there were no differences between girls in each of family relations and reproductive health in Egypt & Saudi Arabia. The structure of family relations and reproductive health related to region (Egypt & Saudi Arabia) revealed that there were differences between girls in reproductive health for the benefit of Saudi girls. The linear model analyses revealed that in Egypt the independent variables (relation with children, husband's education, number of family members, age when marriage and relation with neighbors) were able to explain (73.4%) of changes in degree of reproductive health, but in Saudi Arabia (husband's education, relation with children, current age, relation with wife's family and family relations) were able to explain (27.1%) of changes in degree of reproductive health.
Key Words: early marriage, family health, family relations, reproductive health.

1. Introduction

The family is the basic unit of social organization in traditional and contemporary Arab society, the center of social and economic activities, remains a relatively cohesive social institution, it is at the center of social organization in all three Arab patterns of living (bedouin, rural, and urban), the family constitutes the dominant social institution, person and groups inherit their religious, social class and cultural identities through it, and also provides security and support in times of individual and societal stress (Fernea, 1985).
Arab culture emphasizes the importance of the collective rather than the individual (Mourad & Carolan, 2010), and the main purpose of marriage in the Arab world is reproduction and social stability (Crabtree, 2007). An Arab's first loyalty is to family, which cannot be dishonored; therefore maintenance of family honor is one of the highest values in Arab society. Family honor includes separation of the sexes, particularly behaviors which are prohibited pre-marital or extra-marital sex, so the main duty of women has protected the honor of her family (Aroian et al., 2006). Additionally, there is a high value placed on virginity (Robinson Wood, 2008), so the early marriage of females spreads widely in Arab societies.
Marriage is central to any discussion in many societies of the sexual and reproductive health of young people because of the universal valuation of marriage and the taboos and religious sanctions against pre-marital and extra-marital sexual relations (DeJong, et al., 2005), especially in Arab societies, which include customs and traditions, religious values, prohibition of sexual practices before marriage. In many Arab societies, women's social status is strongly contingent on being married and rearing children, especially boys (El Saadawi, 1995). Children live at home until they are married, and if they never marry, they are living with their parents in most families (Haboush, 2007; Aboul-Enein & Aboul-Enein, 2010). Also marriage is an indicator to independence of Arab youth from parents' families and establishes their freedom from parental authority (Basit, 1997).

Early marriage is defined as marriage, which happening before 18 years and applies to both boys and girls (World Health Organization et al., 2013). The age of women at marriage have a great importance not only because their contents of social, cultural, and demographic, but it contains the most important qualitative change in the lives of women and her roles, this mean transition from celibacy to marriage (Miller, 1993). woman's age at marriage depending on the nature of the circumstances surrounding human societies in general, the cultural of society, ideologies associated with women's sexual behavior, wanting to have children, the tendency to regulate

Selection and peer review by the scientific conference committee under responsibility of the Australian Society for Commerce, Industry and Engineering

sexual relations between males and females with in society, the absence of rights to female or male in the decision of marry, and control older age to make such decisions, all this factors can be contributed to report features of females' ages at marriage and its timing, these variations have been differed from one society to another (Jeannette, 2009). young women's involvement in husband selection, power in marital relations, communication between couples, interaction, self-efficacy, gender-role attitudes, and reproductive practices differ between women who married early and women who married late (Santhya et al., 2010), and between poor and rich societies (Nasrullah, 2014).

Interesting of early marriage and childbearing has recently surged, and many international health and development agencies have called for research and action on this topic (United Nations Children's Emergency Fund, 2001; Save the Children, 2004). A persistent problem in many developing countries is early marriage (United Nations, 1989), According to the Population Council (2010), one-third of girls in developing countries (excluding China) are married before the age of 18; one in seven is married off before the age of 15, girls' early marriage tends to be especially concentrated in certain areas of Africa and South Asia. According to UNICEF (2005) and Bott et al. (2003) study of women between the ages of 15 and 24, 48 percent of girls in South Asia, 42 percent of girls in Africa, and 29 percent of girls in Latin American and the Caribbean were married before the age of 18. The population of youth from the ages 15-24 years living in the Middle East and North Africa region alone is estimated to be around 90 million (one in five people), indicating that this region has the second youngest population worldwide (United Nations Department of Economic and Social Affairs, 2011).The population of young people is widely affected by varied socioeconomic, educational, cultural, religious characteristics, globalization, migration, information technology and political changes are contributing to the shaping of their sexuality (El-Kak, 2013).

Most countries have national laws designed to ensure that adolescents do not marry before age 18, but in many places over the world these laws are not enforced, Nevertheless, in 2010, roughly 67 million women worldwide were married before this age, and 12% of them were married before age 15 (United Nations Population Fund, 2012; Chandra-Mouli et al., 2013). The World Health Organization explained that more than 140 million girls will marry at early age between 2011 and 2020, if current levels of child marriages hold, 14.2 million girls annually or 39000 daily will marry at early age, Furthermore 140 million girls will marry before 18 years and 50 million will be under the age of 15 years (WHO et al., 2013).

Adolescent marriage continues to exist in the Europe, Middle East & North Africa regions with 12% of females aged 15-19 years married (Roudi-Fahimi, 2003; Aoyama, 2001). In study of Egypt (initiated in 2008) that 12% of young Egyptian women aged 15 -17 years were engaged, and an additional 2% were already married, while for women aged 18-24 years 38% were married and 14% were engaged (Population Council, 2011). A study conducted in Saudi Arabia has shown that 28.6% were married at 15-19 years old and 75.5% were married at age 20-24 years old (Public Statistics Authority, 1402Hijri).

The early marriage is associated with current age, place of residence, both women's and husbands' education, economic status, including employment in the wage economy, dowries, parental education
(Smith et al., 2012; Kamal & Hassan, 2103).

Additionally, early marriage has been linked with lower educational attainment, and limited economic activities (Levine et al., 2008). In the other way poor families tend to see the costs of education and delayed marriage for daughters are important because they have become aware that early marriage and childbearing entails costs and risks (Schuler et al., 2006).

Early marriage and childbearing are leading to many negative social and health consequences such as School dropout and a reduction in opportunities for employment is a result of girls relocation from their parent family to husband's family (Jain & Kurz, 2007), and also more likely to experience domestic violence (Rihani 2006; Jensen and Thornton, 2003), early marriages have implications on sexual and reproductive health (El-Kak, 2013). Rapid population growth, an abuse of girls' human rights, mortality and morbidity during pregnancy, labor and delivery, early births (UNICEF, 2001), obstructed labor, obstetric fistula, babes' disability, not knowing how to take care of themselves during pregnancy, and having children throughout their teenage year (International Center for Research on Women, 2004; Muleta, 2006; Schuler et al., 2006). Early marriage extends a woman's reproductive span, thereby contributing to increase family size, especially in the absence of contraception (Adlakha et al., 1991).

In the later part of the 20th century, interest centered on the reasons of rapid population growth (Macfarlane, 1986). The World Health Report (2008) showed the importance of policies for achieving primary health care which aim to make health systems function properly; this emphasis is welcome. There are now wide acceptance that human rights have important roles to achieving the goals and objectives contained in the World Health Organization's strategy about reproductive health (World Health Organization, 2004). The problems of reproductive health accounted 12.5% of the total diseases in Arab region (WHO, 1998).

Reproductive health for youth is the state of physical, social, and mental integration to help youth on proper orientation toward adulthood and subsequent developmental stages, achieved that with health education,

Selection and peer review by the scientific conference committee under responsibility of the Australian Society for Commerce, Industry and Engineering

counseling & awareness, participation & interaction with youth to know their problems and help them to solve it or making decisions on matters related to, and development their skills required in that (WHO, 1998). For instance, the definition of reproductive health as the ability of women to live through the reproductive years and beyond with reproductive choice, dignity, and successful childbearing, and to be free of gynecological disease and risk (Kaddour et al., 2005). As Harris and Smyth (2001) note: reproductive health cannot be separated from the conditions of poverty and insecurity in some societies.

In the 1990, there were calls for comprehensive programs providing health information and life skills for young people, to address their sexual and reproductive health needs (Kirby, 2001). These strategies included building young people's skills, expanding their opportunities for education and work and their participation in the community and programs, and providing safe and supportive environments (WHO et al., 1997; WHO, 2002). To improve reproductive health across the globe, the past decade has witnessed an increased interest in women's reproductive health and development programs, the International Conference on Population and Development (ICPD), in Cairo 1994 catalyzed a new comprehensive understanding of reproductive health, by all efforts of participants, policymakers, researchers, health service providers, scholars, feminists and health advocates from developed and developing countries (lush, 1999; AbouZahr, 1999).

Failure to address young people's sexual and reproductive health needs is part of a larger set of problems confronting this age group (DeJong, et al., 2005). Sexual health defined, particularly as physical, emotional, intellectual, and social integration to sexual life which enhances and develops self-identity and ability to communicate and love, the sexual attitudes are affected by a lot of factors, including family, friends, law, religion, customs, life skills, economic factors, media, and school (WHO, 1998). Sexual life is the basic features in the lives of human beings, but it have a little attention in discussions which centered on public policy, because this subject have cultural and political sensitivities and some may feel embarrassed when talking about such problems or even searching for who help them to resolve it, especially in the Middle East (Roudi-Fahimi et al., 2008).

Adolescent pregnancy and childbirth are often associated with an increased risk of poor health outcomes for both the mother and the baby (Paranjothy et al., 2009; Mollborn & Morningstar, 2009) compared with babies born to older parents (Martinez et al., 2011).

The adverse effects of adolescent childbearing extend to the health of their infants, in Loddon Mallee Integrated Cancer service, stillbirths and deaths in the first week and first month of life are 50% higher among babies born to mothers younger than 20 years than those born to mothers aged 20-29 years, and the younger the mother, the greater the risk (Patton et al., 2009).

For many decades it has been known that infant and child death rates are lower among children of educated mothers (Hobcraft et al., 1984). A woman's ability to select if and when to become pregnant have a direct impact on her health, family planning allows spacing between pregnancies and can delay pregnancies in young women to avoid health problems and death from early pregnancy and reduce the high rates of infant mortality and morbidity their health, family planning enables women who wish to limit the size of their families to do so and evidence suggests that women who have more than four children are at increased risk of death (WHO, 2013).

Breastfeeding also contributes to maternal health immediately after childbirth because it helps reduce the risk of post-partum hemorrhage, in the short term, breastfeeding delays the return to fertility and in the long term, it reduces breast, uterine, ovarian cancer (Saied et al., 2013) and prevalence of osteoporosis widely (Mannel et al., 2012). Studies have also found an association between early cessation of breastfeeding and post natal depression in mothers (Motee, et al., 2013). The benefits of exclusive breastfeeding are enormous including protection of infants against infections, childhood fatness, and chronic diseases in later life (National Health and Medical Research Council, 2013). Breastfeeding should be initiated during the first hour after birth because colostrum, the yellowish, sticky breast milk formed immediately after childbirth, colostrum is recommended by World Health Organization as the most excellent food for the newborn, exclusive breastfeeding is recommended up to 6 months of age, with continued breastfeeding by the side of suitable complementary foods up to two years of age (WHO, 2011). The quantity and quality of breast milk are influenced by a wide variety of factors including the child's age, individual characteristics, and psychological and physical state of the mother (Harrison et al., 1993).

There are strong relation between breastfeeding and positive bonding between mother and their infant from the beginning of the first day of birth (NHMRC, 2013). Suboptimal feeding patterns during the first two years of life are main determinants of malnutrition to children and constitute an important predictor of health in later years, in the Middle East and North Africa there are practices of mixed breast and bottle-feeding of first month, early use of complementary foods such as non-milk fluids, sweetened water and herbal teas (Nasreddine et al., 2012). There are strong positive effects on mother's health and nutrition, but this effect is associated with customs, traditions, and background of health and nutritional status related to Mother's childhood (Behrman and Wolfe, 1987).Good health and enough nutrition are important to woman at all stages of their lives, woman need to protect their own health and nutritional status by perform their productive and reproductive roles (McGuire and Popkin, 1990).

Selection and peer review by the scientific conference committee under responsibility of the Australian Society for Commerce, Industry and Engineering

The provision of care means paying enough time and attention to satisfy physical, mental, and social needs of children and other family members, care affects nutrition security in two broad ways: first, through feeding practices such as breastfeeding and the preparation of nutritious foods for weaned infants which considered to be a difficult and dangerous transition, and if it is not in a timely, it will affect on child's health and second, through health practices such as the bathing of children and washing of hands before eating food (Quisumbing et al., 1995; Harrison et al., 1993). Historical changes in the economy, as well as changes in women's concepts of their roles in society and the family lead to important changes in the rearing of babies and young children (Scarr, 1998). The placement of babies and young children in child care challenges entrenched beliefs and scientific theories that confirm the importance of maternal care (Brazelton, 1986). Other researchers documented positive relations between child-care quality, children's linguistic, cognitive, and social performance (Burchinal et al., 2000; Vernon-Feagans et al., 1997).

Women situated reproductive health within social, economic and familial context in their lives. Overcoming economic problems, having a good home and a socially favorable environment were elements which affect on reproductive health (Kaddour, 2005), So Marriage represents an important dimension of social relationships (Kiecolt-Glaser & Newton, 2001; Rogers, 1996). It benefits individuals by providing support and social networks that affect morale; self-worth, and life satisfaction, Furthermore, marriage positively influences health behaviors such as diet, exercise, and utilization of medical and social services (Joung, van der Meer & Mackenbach, 1995; Umberson, 1992; Wyke & Ford, 1992).

Arab society is always placed a great deal of importance on family relationships, and family are often large and strongly influence on individuals' life, family network are the most important social safety network, strong and close-knit. The family is one of the most important institutions in the Egyptian society; Egyptian people consider themselves as one family, family relationship in Egypt refers to solidarity, social cohesion and mutual support, the man stays within his family and enjoys all the advantages of his ancestral social environment, numerous stories tell about the close relations of sons to their mothers - even after the wedding - that keep the influence capabilities of the young woman in narrow confines for several years (Bauernfeind, 2002). Only after the woman has built up a somewhat more independent position, by bearing her own children, her situation will improve and she will come to have some matriarchal power in her hands (Jödicke & Werner, 1996). In free time family members visit relatives, family does not allow their daughter to go away too far from the home without supervision, while their brothers often go away from home without supervision, family members constitute separate circles of friends and team mates instead of spending most time with brothers and sisters, adolescents are more likely to be with class mates, team mates or friends (Bauernfeind, 2002).

Saudi family is a basic unit that extends its cultural from Arab Islamic sources where social interactions between family members occur within the context of social relations set by values and norms of their culture which contains tendency to marry girls from inside the tribal kinship, as a result of economic development Saudi family enabled to increase consumption, reflected in housing patterns, costs of marriage, types of cars and other lifestyle aspects, economic and social changes have also produced numerous individualistic values at the expense of collective values, thereby resulting in widening the social distance between couples and their children in particular, increasing dependence on foreign servants and foreign maids which may carry negative connotations because it is associated with socialization of children and of young family members (El-Haddad, 2003).

Arab societies have an emphasizing the collective over the individual and social stability (Al-Krenawi & Graham, 1996, 1997; Barakat, 1993), so family interaction prefers maternal relations, where women consider being a connecting links to family relations (Rossi & Rossi, 1990). In Arab family, relation between man and woman has become dominated by a wider participation in a lot of wife's decisions, and doing tasks outside the home, and the independence out of Parent family (Suleiman, 2006).

A previous study of (Rebzani, 1997) showed that 71.3% of women decide like their husband or more in rearing children, 60.7% decide in the big expenses and 8.3% decide individually to get out of house without permission of their husband. Relationships between husband and wife are based on respect and love (Aroian et al., 2006).

Previous studies show that a person who receives strong support from his or her, spouse, friends and family members have better physical and psychological health than individuals with weaker support (Cohen & Wills, 1985). This marital support, which includes caring, loving, and showing an interest in the spouse's feelings is the most significant source of support (Cutrona & Suhr, 1992).

Marital relationship quality has been a significant effect on parenthood and child development, Co-parenting, which is defined as parents sharing responsibilities, supporting each other affects on children. (Feinberg, 2003). Parental self-efficacy has been shown to contribute directly to children's (Ardelt & Eccles, 2001; jones & Prinz, 2005). It is negatively correlated with children's behavioral difficulties (Yaman et al., 2010). Children are taught from an early age that their actions are a reflection upon the family (Mourad, 2010; Haboush 2007).

Relations with parent family is still expected even after marriage (Aboul-Enein, 2010), because they are talking advices from parent family and kin (McGoldrick et al., 2005). The adult eldest son is responsible for his parents, the behavior of his immediate family and extended family (Haj-Yahia 2002). In the Arab family structure,

Selection and peer review by the scientific conference committee under responsibility of the Australian Society for Commerce, Industry and Engineering

respect is obligatory towards elders (Baraket, 1993), so the elder and ailing parents usually live with one of their children (Aboul-Enein, 2010), because the strong sense of familial duty (Binghalib, 2011). The presence of father in law and mother in law in their sons' family impose other types of family relationships, it were given father in law and mother in law freedom and authority to intervene in the affairs of sons' family (Rebzani, 1997), while parental involvement in the affairs of sons' family will be weak for working mothers in law and when their sons live in a separate dwelling, which may constitute disagreement between parents and sons, where sons aspire to freedom and avoid entering into conflicts with their parents (Suleiman, 2006), and in some cases parents prefer the separation of sons' family because of the large size of family and small house (Lacoste-Dujardin, 1996). The wives play a role in regulating communication between her family, parent family and kin than her husband, so closeness between the members of family lead to greater comfort, marital happiness and stability (Timmer &Veroff, 2000).

Middle Eastern cultures emphasize personal contacts and relationships (Bastani, 2007). Fischer and Oliker (1983) argue that structural constraints are a primary cause of gender differences in networks. They point out that: "the differing positions of women and men in the work force, in marital roles, and in parenthood create different sets of opportunities for and constraints on friendship building". The traditional home-based existence of women, their primary role as home-keeper and mother, and the differences in standards regarding sexual activity, all play a part in the differences in the networks of women and men (Moore, 1990).

Men have more opportunities than women to develop relationships with other people because they tend to move in a variety of different social contexts, women have slightly larger social networks than men: an average of 9.8 ties per network, compared to 9.4 ties among men (Bastani, 2007). This is in accord with Wellman's study in Toronto (1992b) and Moore (1990) for the overall network. Most ties tend to be with immediate kin: children, parents and siblings (Bastani, 2007).

The composition of the networks is indicated by the percentage of specific relationships in the network: percent kin, friend, neighbor, coworker (Bastani, 2007). Several studies have shown the existence of kin ties and the support provided by these relationships (Wellman, 1992a; Wellman and Wortley, 1990). There is also evidence of intimate relationships among neighbors (Sedigh-Sarvestani, 1991), and among friends and coworkers (Wellman and Wortley, 1990). Relations with kin and neighbors tend to be more important to women than to men. For women, kinship ties have priority on their time and energies, and are of much practical and psychological importance (Bastani, 2007). A family's cohesiveness and the quality of family relations most strongly affect on psychological and behavioral consequences in sons, the wife plays an important role to keep cohesion of family (Reiss & Oliveri, 1983). Researchers found that the present study expands on this literature by focusing on family relations and reproductive health in the context of early marriage, specifically university girls and participation in supporting for wife to improve her life. The four guiding research questions were as follows:

Research Question 1: What is the correlation between demographic variables for girls, family relations, and reproductive health in Egypt and Saudi Arabia?

Research Question 2: What are the differences in each of family relations and reproductive health related to study type in Egypt & Saudi Arabia?

Research Question 3: What are the differences in each of family relations and reproductive health related to region?

Research Question 4: What is the effect of some demographic variables and family relations with their dimensions on reproductive health?

2. Hypotheses

2.1Demographic Variables, Family Relations and Reproductive Health

In the first part of this study we examined the correlation between each of demographic variable (current age, study type, marriage duration, age at marriage, number of family members, husband's profession, husband's education, income), family relations (relation with husband, relation with husband's family, relation with wife's family, relation with classmates, relation with neighbors, relation with children) and reproductive health (sexual education, family planning, pregnancy & childbirth, breastfeeding & weaning, mother's nutritional care, child's care) for girls as a main hypothesis.

Previous researches which related to the correlation between family relations and reproductive health showed that good reproductive health was related to good family relations which including mutual understanding, comfort, happiness, optimism about life, good sexual relations and overall satisfaction with marital life (Kaddour et al. 2005**).** Relationship between husband and wife emphasize the positive health benefits that male involvement for women through social support, the quality of the familial and marital relationships especially relation with husband are important factors which related to pregnancy and childbirth, in other way ensuring men's involvement in reproductive and maternal health matters for women could promote a better relationships (Carter, 2002). Promoting communication between husbands and wife may help to increase health-seeking

Selection and peer review by the scientific conference committee under responsibility of the Australian Society for Commerce, Industry and Engineering

behaviors related to pregnancy, childbirth, and the postpartum period (Mullany, 2006). Negative attitudes of family and friends can pose a barrier to breastfeeding. Some mothers say that they do not ask for help with breastfeeding from their family or friends because of the contradictory information they receive from these sources (Libbus et al., 1997).

Previous researches which related to the correlation between demographic variables and family relations showed that there was positive relation between education and relationships (Marsden and Hurlbert, 1988). Education and income correlate with the number of kin in social relations and people with higher levels of education have more friends in their social relations (Bastani, 2007). Middle class tend to know more neighbors than upper people; they are less likely to depend on their neighbors (Sedigh-Sarvestani, 1991).

Previous researches which related to the correlation between demographic variables and reproductive health showed that there was association between socio-demographic and health risk indicators. (Carter, 2002). Good reproductive health was related to economic status, family planning was related to economic status (Kaddour, 2005). Adolescent pregnancy and its consequences represent a major public health concern in many low-middle income countries of the world (Chandra-Mouli et al., 2013). Child morbidity and mortality is increased in poor and uneducated families (Jain & Kurz, 2007**;** UNICEF, 2005). Deferent income allocated for food can lead to the risk of low energy and micronutrients, especially in the period of pregnancy and lactation for women (Gittelsohn, 1991). Accordingly, we posed the following sub main hypotheses:

Hypothesis 1a: Family relations and their dimensions will be positively correlated with reproductive health and its dimensions for girls in each of Egypt and Saudi Arabia society.

Hypothesis 1b: Demographic variables will be correlated with family relations and their dimensions for girls in each of Egypt and Saudi Arabia society.

Hypothesis 1c: Demographic variables will be correlated with reproductive health and its dimensions for girls in each of Egypt and Saudi Arabia society.

2.2The Differences between Participants in Family Relations and Reproductive Health

In the second part of this study we examined the differences between participants according to study type and region. Because this research is one of the first studies on family relationships and reproductive health in a comparative study between Egypt and Saudi Arabia. There are no previous studies examined the differences between Egypt and Saudi Arabia society in this variables, accordingly, we posed the following hypotheses:

Hypothesis 2: Girls will be frequently differed in family relations and reproductive health between each of Egypt and Saudi Arabia society.

Hypothesis 3: Girls who study theoretical and practical will be frequently differed in each of family relations and reproductive health.

2.3The Variables which Affected on Reproductive Health

In the third part of this study we examined the impact of family relations and their dimensions, and demographic variables on reproductive health. Previous research showed that social causation theory, social relations affect on positive health behaviors and psychosocial factors (Wyke & Ford, 1992). Husbands' roles in maternal health support safe motherhood through the provision of love and support relations between husbands and wives (Engender Health, 2003; Carter, 2002). The results of multilevel logistic regression analyses current age, income, husbands' education affected on reproductive health **(**Kamal and Hassan, 2013**).** In a recent study that examined the effects of both partner's education on health, educated husbands and wives contributed in a positive direction to their spouses self-assessed health (Monden et al., 2003). (Stolzenberg, 2001; Bosma et al., 1995; Egeland et al., 2002), postulated that spouse's education influence on family's health behaviors. Occupational and economic status, which in turn, directly and indirectly influences health behaviors and attitudes (Lynch et al., 1997; Psacharopoulos & Patrinos, 2004). Family economic standing has some impact on both wives' health (Cubbins and Szaflarski, 2001). Accordingly, we posed the following hypothesis:

Hypothesis 4: Reproductive health will be in the best rates in the light of family relations and their dimensions, and demographic variables.

3. Method

3.1Participants

The total sample of study was 400 girls from Egypt and Saudi Arabia as purposive sample in conditions early marriage, have a child at least and still in the university study. All data from Egypt and Saudi Arabia were collected on March and April 2013 by questionnaires. In Egypt N = 200 married girls studied at Menofia University participated in this study, we distributed 215 forms and then we excluded 15 forms due to missing data by (6.9 %). The majority of girls aged 21 years by (36.0 %) and aged at marriage 19.5 years by (66.0 %), and had marriage duration 2 years by (49.0 %), family income 850 pounds by (28.0 %), and husbands worked at private sector by (54.0 %) and their education university qualified by (47.5 %). Girls were studied theoretical by (59.0 %) and the remaining (41.0 %) were studied Practical. Number of family members to majority of girls ranged from 4 members or less by (72.0 %). In Saudi Arabia N = 200 married girls studied at Taibahu University

Selection and peer review by the scientific conference committee under responsibility of the Australian Society for Commerce, Industry and Engineering

participated in this study, we distributed 227 forms and then we excluded 27 forms due to missing data by (11.8 %). The majority of girls aged 21 years by (37.0 %) and aged at marriage 19.5 years by (45.5%), and had marriage duration 2 years by (47.0 %), family income 4000 riyal by (23.5 %), and husbands worked at private sector by (70.5 %) and their education university qualified by (50.5 %). Girls were studied theoretical by (52.0 %) and the remaining (48.0 %) were studied Practical. Number of family members to majority of girls ranged from 4 members or less by (63.0 %).

3.2Measures

Demographic Data Form for Girls. This form had been prepared by researchers and contained a group of data which served the objectives of the study such as age which measured in years; ranged from (19 - 27) years in Egypt and Saudi Arabia with (M = 22.89, *SD* = 2.751) and (M = 22.13, *SD* = 2.286) respectively, study type was coded (1= practical, 2 = theoretical), marriage duration was measured in years; ranged from (2-8) years in Egypt and Saudi Arabia with (M = 4.20, *SD* = 2.456) and (M = 3.87, *SD* = 2.084) respectively, age at marriage was measured in years; ranged from (15.5 - 19.5) years in Egypt and Saudi Arabia (M = 18.80, *SD* = 1.194) and (M = 18.25, *SD* = 1.336) respectively, number of family members was ranged from (1 - 3) (1 = *4 members or less*, 2 = *5 - 6 members*, 3 = *7 members or more*), husband's profession was coded (1 = *government employee*, 2 = *private employee*), husband's education was ranged from (1 - 9) (1 = *illiterate*, 2 = *read and write*, 3 = *primary*, 4 = *preparatory*, 5 = *average*, 6 = *secondary*, 7 = *above average*, 8 = *university* , 9 = *Msc or PhD*), in Egypt income was measured in pounds; ranged from (600 - 2600) pounds with (M = 1533.75, *SD* = 668.512), but in Saudi Arabia income was measured in riyal; ranged from (3000-11000) with (M= 7.400.00, *SD* = 2.675.029).

Family Relations Questionnaire. Questionnaire had been prepared by researcher after reviewing the Masters, PhD and books related to family relations, six dimensions were construct to study the quality of family relations on a scale (always, sometimes, rarely) ranging From (1 - 3) according to the direction of the phrase (positive or negative), so the number of questionnaire phrases become 58 items in Egypt (α = .92) and Saudi Arabia (α = .88). *Relation with husband* had 17 items in Egypt (α = .77) and Saudi Arabia (α = .75). *Relation with husband's family* had 8 items in Egypt (α = .72) and Saudi Arabia (α = .67). *Relation with wife's family* had 7 items in Egypt (α = .67) and Saudi Arabia (α = .68). *Relation with classmates* had 7 items in Egypt (α = .67) and Saudi Arabia (α = .68). *Relation with neighbors* had 9 items in Egypt (α = .85) and Saudi Arabia (α = .80). *Relation with children* had 10 items in Egypt (α = .89) and Saudi Arabia (α = .78).

Reproductive Health Questionnaire. Questionnaire had been prepared by researcher after reviewing the Masters, PhD and books related to reproductive health, six dimensions were construct to study the quality of reproductive health, on a scale (always, sometimes, rarely) ranging From (1 - 3) according to the direction of the phrase (positive or negative), so the number of questionnaire phrases become 100 items in Egypt (α = .89) and Saudi Arabia (α = .84). *Sexual education* had 13 items in Egypt and Saudi Arabia (α = .70). *Family planning* had 11 items in Egypt (α = .76) and Saudi Arabia (α = .72). *Pregnancy and childbirth* had 15 items in Egypt (α = .68) and Saudi Arabia (α = .70). *Breastfeeding and weaning* had 16 items in Egypt (α = .67) and Saudi Arabia (α = .75). *Mother's nutritional care* had 13 items in Egypt (α = .76) and Saudi Arabia (α = .77). *Child's care* had 32 items in Egypt (α = .86) and Saudi Arabia (α = .81).

To examine the content validity, study tools were offered to a group of professors in the field of specialization and numbered 11 professors to give their comments. Percentage of agreement on the family relations questionnaire ranged from 71% to 91% and on the reproductive health questionnaire ranged from 81% to 91%

3.3Analytic Strategy

To address hypotheses 1a, 1b and 1c, we conducted Spearman correlation coefficient to examine the correlate between demographic variables for girls, family relations and reproductive health. To address hypotheses 2 and 3, we conducted comparative descriptive analyses on the structural aspects of two study type (Practical, Theoretical) and two regions (Egypt, Saudi Arabia) by using independent samples *t* test to examine differences between two study type and two regions according to family relations and reproductive health. To address Hypothesis 4, we conducted a regression analyses to examine the influence of each demographic variables for girls and family relations with their dimensions on reproductive health.

Selection and peer review by the scientific conference committee under responsibility of the Australian Society for Commerce, Industry and Engineering

Table 1. *Girls Demographic Variables, Girls Family Relations and Girls Reproductive Health in Egypt and Saudi Arabia: Descriptive Statistics*

Variables	Egypt (E) *N*=200					Saudi Arabia (S) *N*=200				
	M	*SD*	Range	*n of items*	*A*	*M*	*SD*	Range	*n of items*	*α*
Current age	22.89	2.751	19–27	-	-	22.13	2.386	19–27	-	-
Study type	-	-	1–2	-	-	-	-	1–2	-	-
Marriage duration	4.20	2.456	2–8	-	-	3.87	2.084	2–8	-	-
Age at marriage	18.80	1.194	15.5–19.5	-	-	18.25	1.336	15.5–19.5	-	-
Number of family members	-	-	1–3	-	-	-	-	1–3	-	-
Husband's profession	-	-	1– 2	-	-	-	-	1–2	-	-
Husband's education	-	-	1–9	-	-	-	-	1–9	-	-
Income	1.533.756	68.512	600–2.600	-	-	7.400.002	675.029	3.000–11.000	-	-
Relation with husband	41.70	4.940	1–3	17	.77	42.22	4.720	1–3	17	.75
Relation with husband's family	18.54	2.832	1–3	8	.72	19.34	2.872	1–3	8	.67
Relation with wife's family	17.07	2.362	1–3	7	.67	18.26	2.001	1–3	7	.68
Relation with classmates	17.61	2.600	1–3	7	.67	17.73	2.542	1–3	7	.68
Relation with neighbors	22.84	3.924	1–3	9	.85	21.94	3.719	1–3	9	.80
Relation with children	26.09	4.293	1–3	10	.89	26.99	3.031	1–3	10	.78
Family relations	143.84	16.133	58–174	58	.92	146.47	13.022	58–174	58	.88
sexual education	28.46	3.771	1–3	13	.70	28.60	3.400	1–3	13	.70
Family Planning	23.86	2.942	1–3	11	.76	24.64	2.930	1–3	11	.72
Pregnancy and childbirth	31.95	2.848	1–3	15	.68	34.02	3.166	1–3	15	.70
Breastfeeding and weaning	37.94	3.887	1–3	16	.67	37.63	3.570	1–3	16	.75
mother's Nutritional care	29.87	4.989	1–3	13	.76	30.54	4.552	1–3	13	.77
Child's care	78.17	9.448	1–3	32	.86	79.95	7.504	1–3	32	.81
Reproductive health	230.23	20.910	100–300	100	.89	235.36	16.371	100–300	100	.84

4. Results

4.1 Hypotheses 1: Hypothesis 1a: Family relations and their dimensions will be positively correlated with reproductive health and its dimensions for girls in each of Egypt and Saudi Arabia society.

Hypothesis 1b: Demographic variables will be correlated with family relations and their dimensions for girls in each of Egypt and Saudi Arabia society.

Hypothesis 1c: Demographic variables will be correlated with reproductive health and its dimensions for girls in each of Egypt and Saudi Arabia society.

Tables 2, 3 showed that in Egypt there was no correlation between current age and family relations; reproductive health with all their dimensions. In Saudi Arabia there were positive correlation between current age and each of (relation with husband and relation with husband's family; sexual education and reproductive health) $P < .05$, negative correlation between current age and relation with children $P < .01$, and positive correlation between current age and breastfeeding & weaning $P < .001$.

In Egypt there were positive correlation between husband's education and each of (sexual education, pregnancy & childbirth, and mother's nutritional care) $P < .05$, positive correlation between husband's education and each of (relation with classmates and relation with children; breastfeeding & weaning) $P < .01$, and positive correlation between husband's education and each of (relation with husband's family, relation with wife's family, and family relations; child's care and reproductive health) $P < .001$. In Saudi Arabia there were positive correlation between husband's education and relation with husband's family $P < .05$, positive correlation between husband's education and relation with husband $P < .01$, positive correlation between husband's education and each of (relation with classmates, relation with children, and family relations) $P < .001$, and negative correlation between husband's education and family planning $P < .001$.

In Egypt there was no correlation between marriage duration and each of (relation with husband, relation with husband's family, relation with wife's family, relation with classmates, relation with neighbors, relation with children, and family relations; sexual education, family planning, pregnancy & childbirth, breastfeeding & weaning, mother's nutritional care, child's care, and reproductive health). In Saudi Arabia there were positive correlation between marriage duration and each of (breastfeeding & weaning and reproductive health) $P < 0.01$, and positive correlation between marriage duration and sexual education $P < .001$.

In Egypt there were positive correlation between age at marriage and each of (relation with husband and family relations; family planning) $P < .05$, positive correlation between age at marriage and relation with wife's family P

Selection and peer review by the scientific conference committee under responsibility of the Australian Society for Commerce, Industry and Engineering

< .01, and negative correlation between age at marriage and sexual education P < .01. In Saudi Arabia there was positive correlation between age at marriage and relation with husband's family P < .01.

In Egypt there were positive correlation between number of family members and each of (relation with husband and family relations; child's care and reproductive health) P < .05 and positive correlation between number of family members and breastfeeding & weaning P < .01. In Saudi Arabia there were positive correlation between number of family members and child's care P < .05, positive correlation between number of family members and each of (relation with husband and family relations) P < .01, and positive correlation between number of family members and relation with husband's family P < .001.

In Egypt there were positive correlation between income and each of (sexual education, mother's nutritional care, and reproductive health) P < .05 and positive correlation between income and relation with classmates P < .01. In Saudi Arabia there were positive correlation between income and each of (child's care and mother's nutritional care) at P < .05, negative correlation between income and family planning P < .05, and positive correlation between income and relation with husband's family P < .01.

In Egypt there was positive correlation between relation with husband and each of (sexual education, family planning, pregnancy & childbirth, breastfeeding & weaning, mother's nutritional care, child's care, and reproductive health) P < .001. In Saudi Arabia there were positive correlation between relation with husband and pregnancy & childbirth P < .05, and positive correlation between relation with husband and each of (sexual education, breastfeeding & weaning, mother's nutritional care, child's care, and reproductive health) P < .001.

In Egypt there were positive correlation between relation with husband's family and sexual education P < .05, and positive correlation between relation with husband's family and each of (family planning, pregnancy & childbirth, breastfeeding & weaning, mother's nutritional care, child's care, and reproductive health) P < .001, In Saudi Arabia there were positive correlation between relation with husband's family and pregnancy & childbirth P < .05, positive correlation between relation with husband's family and mother's nutritional care P < .01, and positive correlation between relation with husband's family and each of (sexual education, breastfeeding & weaning, child's care, and reproductive health) P < .001.

In Egypt there was positive correlation between relation with wife's family and each of (family planning, pregnancy & childbirth, breastfeeding & weaning, mother's nutritional care, child's care, and reproductive health) P < .001. In Saudi Arabia there were negative correlation between relation with wife's family and mother's nutritional care P < .05, and positive correlation between relation with wife's family and sexual education P < .001.

In Egypt there were positive correlation between relation with classmates and sexual education P < .01, and positive correlation between relation with classmates and each of (family planning, pregnancy & childbirth, breastfeeding & weaning, mother's nutritional care, child's care, and reproductive health) at P < .001, In Saudi Arabia there were positive correlation between relation with classmates and sexual education at P < .05, and positive correlation between relation with classmates and each of (pregnancy & childbirth, child's care, and reproductive health) P < .001.

In Egypt there was positive correlation between relation with neighbors and each of (sexual education, family planning, pregnancy & childbirth, breastfeeding & weaning, mother's nutritional care, child's care, and reproductive health) P < .001. In Saudi Arabia there were negative correlation between relation with neighbors and family planning P < .05, and positive correlation between relation with neighbors and each of (sexual education, mother's nutritional care, child's care, and reproductive health) P < .001.

In Egypt there was positive correlation between relation with children and each of (sexual education, family planning, pregnancy & childbirth, breastfeeding & weaning, mother's nutritional care, child's care, and reproductive health) P < .001. In Saudi Arabia there were negative correlation between relation with children and family planning P < .01, and positive correlation between relation with children and each of (sexual education, breastfeeding & weaning, mother's nutritional care, child's care, and reproductive health) P < .001.

In Egypt there was positive correlation between family relations and each of (sexual education, family planning, pregnancy & childbirth, breastfeeding & weaning, mother's nutritional care, child's care, and reproductive health) P < .001, In Saudi Arabia there were positive correlation between family relations and pregnancy & childbirth P < .01, and positive correlation between family relations and each of (sexual education, breastfeeding & weaning, mother's nutritional care, child's care, and reproductive health) P < .001.

Selection and peer review by the scientific conference committee under responsibility of the Australian Society for Commerce, Industry and Engineering

Table 2. *Demographic Variables for Girls, Family Relations and Reproductive Health in Egypt: Correlations (*N *= 200)*

Variables	1	2	3	4	5	6	7	8	9	10
1. Current age	-									
2. husband's education [a]	.176*	-								
3. Marriage duration	.828***	.000	-							
4. Age at marriage	.380***	.291***	.019	-						
5. number of family members [b]	-.354***	.012	-.464***	.093	-					
6. Income	.258***	.260***	.247***	-.066	-.100	-				
7. Relation with husband	-.021	.133	-.085	.179*	.178*	.051	-			
8. Relation with husband's family	-.102	.271***	-.117	.035	.111	.052	.482***	-		
9. Relation with wife's family	-.078	.245***	-.131	.187**	.102	-.005	.496***	.553***	-	
10. Relation with classmates	.000	.198**	.003	.115	.065	.214**	.488***	.331***	.345***	-
11. Relation with neighbors	.028	.120	-.009	-.028	.115	.127	.607***	.374***	.289***	.413***
12. Relation with children	-.057	.185**	-.039	.043	-.017	.130	.515***	.351***	.328***	.536***
13. Family relations	-.045	.264***	-.088	.152*	.163*	.125	.833***	.692***	.657***	.666***
14. sexual education	-.087	.161*	-.060	-.214**	.037	.177*	.365***	.154*	.113	.190**
15. Family Planning	.010	.102	-.051	.143*	.124	.102	.381***	.373***	.314***	.403***
16. Pregnancy and childbirth	-.071	.168*	-.067	.094	.087	.042	.417***	.454***	.468***	.378***
17. Breastfeeding and weaning	-.018	.238**	-.130	.123	.210**	.116	.349***	.316***	.336***	.409***
18. mother's Nutritional care	.083	.148*	.139	.028	-.032	.168*	.428***	.324***	.282***	.379***
19. Child's care	-.017	.261***	-.030	.026	.149*	.118	.585***	.509***	.443***	.466***
20. Reproductive Health	-.009	.272***	-.021	.016	.141*	.176*	.613***	.517***	.465***	.507***

Variables	11	12	13	14	15	16	17	18	19	20
11. Relation with neighbors	-									
12. Relation with children	.533***	-								
13. Family relations	.749***	.727***	-							
14. sexual education	.388***	.393***	.364***	-						
15. Family Planning	.367***	.352***	.504***	.178*	-					
16. Pregnancy and childbirth	.357***	.413***	.566****	.129	.460***	-				
17. Breastfeeding and weaning	.419***	.398***	.501***	.251***	.394***	.348***	-			
18. mother's Nutritional care	.500***	.568***	.585***	.383***	.350***	.385***	.335***	-		
19. Child's care	.642***	.619***	.756***	.344***	.391***	.479***	.545***	.679***	-	
20. Reproductive Health	.666***	.659***	.791***	.518***	.564***	.603***	.663***	.781***	.909***	-

[a]Husband's education (1 = illiterate 2 = read and write, 3 = primary, 4 = preparatory, 5 = average, 6 = secondary, 7 = above average, 8 = university , 9 = Msc or PhD. [b]Number of family members: (1 = 4 members or less, 2 = 5-6 members, 3 = 7 members or more).
*$p < .05$. **$p < .01$. ***$p < .001$.

Selection and peer review by the scientific conference committee under responsibility of the Australian Society for Commerce, Industry and Engineering

Table 3. *Demographic Variables for Girls, Family Relations and Reproductive Health in Saudi Arabia: Correlations (*N = *200)*

Variables	1	2	3	4	5	6	7	8	9	10
1. Current age	-									
2.husband's education [a]	-.046	-								
3. Marriage duration	.481***	-.161*	-							
4. Age at marriage	.445***	.126	-.160*	-						
5. number of family members [b]	-.094	-.018	-.101	-.012	-					
6. Income	.118	.260***	.120	.167*	.027	-				
7. Relation with husband	.140*	.228**	.134	.070	.235**	.066	-			
8. Relation with husband's family	.157*	.164*	.114	.224**	.287***	.188**	.553***	-		
9. Relation with wife's family	-.109	.104	-.133	.072	.060	-.098	.319***	.225**	-	
10. Relation with classmates	-.051	.334***	.030	.015	.072	-.028	.409***	.337***	.361***	-
11. Relation with neighbors	-.002	.122	-.082	-.009	.093	.053	.351***	.364***	.246***	.244**
12. Relation with children	-.200**	.264***	-.020	-.069	.111	.031	.376***	.397***	.261***	.312***
13.Family relations	.033	.273***	.025	.067	.227**	.104	.799***	.717***	.516***	.586***
14. sexual education	.146*	.130	.303***	.027	.060	-.037	.301***	.276***	.246***	.157*
15. Family Planning	.115	-.250***	.043	.111	.040	-.139*	.014	-.135	.020	-.069
16. Pregnancy and childbirth	-.049	.090	.105	.019	-.081	.017	.178*	.178*	.122	.345***
17. Breastfeeding and weaning	.245***	.005	.183**	.125	.124	.099	.301***	.319***	-.117	.111
18. mother's Nutritional care	.129	-.043	.138	.042	.092	.148*	.292***	.239**	-.163*	.107
19. Child's care	.069	-.092	.135	-.052	.158*	.161*	.250***	.258***	.041	.284***
20. Reproductive Health	.152*	-.074	.212**	.058	.127	.085	.348***	.312***	.035	.256***

Variables	11	12	13	14	15	16	17	18	19	20
11. Relation with neighbors	-									
12. Relation with children	.450***	-								
13.Family relations	.669***	.672***	-							
14. sexual education	.315***	.269***	.363***	-						
15. Family Planning	-.153*	-.185**	-.126	.110	-					
16. Pregnancy and childbirth	-.016	.072	.200**	.220**	.299***	-				
17. Breastfeeding and weaning	.104	.305***	.297***	.087	.095	.259***	-			
18. mother's Nutritional care	.289***	.363***	.323***	.289***	.279***	.170*	.465***	-		
19. Child's care	.438***	.403***	.431***	.181*	.124	.218**	.468***	.560***	-	
20. Reproductive Health	.336***	.369***	.429***	.457***	.422***	.507***	.635***	.772***	.788***	-

[a]Husband's education (1 = illiterate 2 = read and write, 3 = primary, 4 = preparatory, 5 = average, 6 = secondary, 7 = above average, 8 = university , 9 = Msc or PhD. [b]Number of family members: (1 = 4 members or less, 2 = 5 - 6 members, 3 = 7 members or more).

*$p < .05$. **$p < .01$. ***$p < .001$.

4.2 Hypothesis 2: Girls will be frequently differed in family relations and reproductive health between each of Egypt and Saudi Arabia society.

Table 4 showed that in Egypt there were no differences between the practical and theoretical study of girls in each of (relation with husband, relation with husband's family, relation with wife's family, relation with classmates, relation with neighbors, relation with children, and family relations; sexual education, family planning, pregnancy & childbirth, breastfeeding & weaning, mother's nutritional care, child's care, and reproductive health), where the average degree of practical study was convergent with theoretical study. In Saudi Arabia there were statistically significant differences between theoretical and practical study of girls in breastfeeding & weaning $P < .01$, where the average degree of practical study was better than theoretical, and no differences between the practical and theoretical study of girls in each of (relation with husband, relation with husband's family, relation with wife's family, relation with classmates, relation with neighbors, relation with children, and family relations; sexual education, family planning, pregnancy & childbirth, mother's nutritional care, child's care, and reproductive health), where the average degree of practical study was convergent with theoretical study.

Selection and peer review by the scientific conference committee under responsibility of the Australian Society for Commerce, Industry and Engineering

Table 4. *Structure of Family Relations and Reproductive Health Related to study type in Egypt & Saudi Arabia (N = 200)*

Variation source	Egypt						Saudi Arabia					
	Independent samples *t* test between study types						Independent samples *t* test between study types					
	Practical (P) *n* = 82		Theoretical (T) *n* = 118				Practical (P) *n* = 96		Theoretical (T) *n* = 104			
	M	*SD*	*M*	*SD*	*t* value	P VS T	*M*	*SD*	*M*	*SD*	*t* value	P VS T
Relation with husband	41.87	4.581	41.58	5.191	0.407	*ns*	42.02	4.976	42.40	4.488	-0.572	*ns*
Relation with husband's family	18.52	2.754	18.55	2.896	-0.065	*ns*	19.35	2.858	19.33	2.898	0.067	*ns*
Relation with wife's family	17.04	2.122	17.08	2.524	-0.141	*ns*	18.11	2.036	18.39	1.968	-0.988	*ns*
Relation with classmates	17.72	2.311	17.53	2.791	0.496	*ns*	17.90	2.739	17.57	2.347	0.913	*ns*
Relation with neighbors	22.91	3.608	22.79	4.145	0.224	*ns*	22.20	3.556	21.69	3.864	0.960	*ns*
Relation with children	26.61	2.801	25.72	5.058	1.445	*ns*	26.93	3.206	27.05	2.874	-0.281	*ns*
Family relations	145.67	13.494	143.25	17.770	0.610	*ns*	146.51	13.938	146.43	12.183	0.042	*ns*
sexual education	28.02	2.767	28.75	4.320	-1.349	*ns*	28.18	3.403	28.99	3.366	-1.698	*ns*
Family Planning	23.99	2.817	23.76	3.034	0.531	*ns*	25.02	3.241	24.28	2.575	1.799	*ns*
Pregnancy and childbirth	31.99	2.594	31.92	3.023	0.177	*ns*	33.76	3.439	34.25	2.889	-1.093	*ns*
Breastfeeding and weaning	38.27	4.249	37.71	3.616	0.996	*ns*	38.45	3.557	36.87	3.428	3.204	**
mother's Nutritional care	30.10	4.102	29.71	5.533	0.537	*ns*	31.06	5.154	30.05	3.878	1.580	*ns*
Child care	78.28	8.094	78.08	10.318	0.144	*ns*	80.60	8.294	79.34	6.676	1.195	*ns*
Reproductive health	230.65	16.690	229.94	23.466	0.234	*ns*	237.07	17.613	233.77	15.046	1.430	*ns*

Note: coefficients not marked with asterisks were not significant.
**$p < .01$.

4.3 Hypothesis 3: Girls who study theoretical and practical will be frequently differed in each of family relations and reproductive health.

In Table 5 there were statistically significant differences between Egyptian girls and Saudi Arabian girls in relation with neighbors P < 0.05, where the average degree of Egyptian girls was better than Saudi Arabian girls. There were differences between Saudi Arabian girls and Egyptian girls in each of (relation with children and child's care) P < .05, where the average degree of Saudi Arabian girls was better than Egyptian girls. There were differences between Saudi Arabian girls and Egyptian girls in each of (relation with husband's family; family planning and reproductive health) P < .01, where the average degree of Saudi Arabian girls was better than Egyptian girls. There were differences between Saudi Arabian girls and Egyptian girls in each of (Relation with wife's family and Pregnancy & childbirth) P < .001, where the average degree of Saudi Arabian girls was better than Egyptian girls. There were no differences between Egyptian girls and Saudi Arabian girls in each of (relation with husband, relation with classmates, and family relations; sexual education, breastfeeding & weaning, and mother's nutritional care), where the average degree of Egyptian girls was convergent with Saudi Arabian girls.

Table 5. *Structure of Family Relations and Reproductive Health Related to Region*

Variation source	Egypt (E) *N* = 200		Saudi Arabia (S) *N* = 200		Independent samples *t* test	
	M	*SD*	*M*	*SD*	*t* value	S VS E
Relation with husband	41.70	4.940	42.22	4.720	1.087	*ns*
Relation with husband's family	18.54	2.832	19.34	2.872	2.805	**
Relation with wife's family	17.07	2.362	18.26	2.001	5.460	***
Relation with classmates	17.61	2.600	17.73	2.542	0.447	*ns*
Relation with neighbors	22.84	3.924	21.94	3.719	-2.367	*
Relation with children	26.09	4.293	26.99	3.031	2.435	*
Family relations	143.84	16.133	146.47	13.022	1.797	*ns*
sexual education	28.46	3.771	28.60	3.400	0.404	*ns*
Family Planning	23.86	2.942	24.64	2.930	2.657	**
Pregnancy and childbirth	31.95	2.848	34.02	3.166	6.874	***
Breastfeeding and weaning	37.94	3.887	37.63	3.570	-0.844	*ns*
mother's Nutritional care	29.87	4.989	30.54	4.552	1.393	*Ns*
Child's care	78.17	9.448	79.95	7.504	2.086	*
Reproductive health	230.23	20.910	235.36	16.371	2.729	**

Note: coefficients not marked with asterisks were not significant.
*$p < .05$. **$p < .01$. ***$p < .001$

4.4 Hypothesis 4: Reproductive health will be in the best rates in the light of family relations and their dimensions, and demographic variables.

Table 6 showed study of factors affecting on reproductive health: regression equation was calculated by inter, all independent variables were entered in multiple linear regression equation (current age, study Type, marriage

Selection and peer review by the scientific conference committee under responsibility of the Australian Society for Commerce, Industry and Engineering

duration, age at marriage, number of family members, husband's profession, husband's education, and income; relation with husband, relation with husband' family, relation with wife's family, relation with classmates, relation with neighbors, relation with children, and family relations) which likely impact on dependent variable (reproductive health), in Egypt Adjusted R^2 (0.734), to know explanatory power of model as a whole by F statistical, where F value (40.157) P < .001. The independent variables (explanatory) were able to explain (73.4 %) of changes in degree of reproductive health in descending order to statistical t were relation with children, husband's education, number of family members, age when marriage and relation with neighbors. There were significant values of regression coefficients of independent variable that the variables of number of family members and husband education had significant extrusive impact P < .01 on reproductive health, also the variable relation with children P < .001, the variable relation with neighbors P < .05, while the variable age at marriage P < 0.05, but in Saudi Arabia Adjusted R^2 (0.271), which, to know explanatory power of model as a whole by F statistical where F value (6.292) P < .001. The independent variables (explanatory) were able to explain (27.1 %) of changes in degree of reproductive health in descending order to statistical t were husband's education, relation with children, current age, relation with wife's family, family relations. There were significant values of regression coefficients of independent variables that the variables (current age; wife's family, relation with children and family relations,) had significant extrusive impact on reproductive health P <.05, while the variable husband's education P < 0.01.

Table 6. *Regression Results of Some Factors on Reproductive Health*

Model	Egypt (E) N = 200			Saudi Arabia (S) N = 200		
	B	*SE*	*t* value	*B*	*SE*	*t* value
1. (Constant)	68.933***	9.584	7.192	147.601***	13.724	10.755
Current age	1.050	1.436	0.731	2.850*	1.283	2.221
Study type	1.023	1.600	0.639	-2.163	2.123	-1.019
Marriage duration	0.647	1.476	0.438	0.652	1.338	0.487
Age when marriage	-2.436*	1.028	-2.368	0.338	0.975	0.347
Number of family members	4.877**	1.662	2.934	0.237	1.243	0.190
Husband's profession	-0.259	1.690	-0.153	1.869	1.703	1.097
Husband's education	1.536**	0.523	2.935	-3.030**	0.949	-3.193
Income	0.399	0.593	0.673	0.601	0.721	0.834
Relation with husband	Excluded Variable			Excluded Variable		
Relation with husband's family	0.484	0.465	1.042	-0.890	0.649	-1.373
Relation with wife's family	0.279	0.527	0.528	-1.473*	0.672	-2.193
Relation with classmates	-0.203	0.541	-0.375	0.902	0.599	1.504
Relation with neighbors	0.862*	0.422	2.042	-0.280	0.438	-0.640
Relation with children	1.607***	0.431	3.732	1.320*	0.558	2.366
Family relations	0.481	0.249	1.933	0.602*	0.287	2.093
Adjusted R^2	.734			.271		
F value	40.157***			6.292***		

*p < .05. **p < .01. ***p < .001.

5. Discussion

It is possible that this study the first studies which research family relations and reproductive health and highlighted on the role of the family relations for both societies Egyptian and Saudi Arabian which influenced on reproductive health, also explained the differences between both societies in (relation with husband, relation with husband's family, relation with wife's family, relation with classmates, relation with neighbors, relation with children, and family relations; sexual education, family planning, pregnancy & childbirth, breastfeeding & weaning, mother's nutritional care, child's care, and reproductive health), and the study indicates to depth research and analysis provide information and value data in the context of families and girls awareness where search results indicated to: there were no correlation between current age and each of (family relations with their dimensions and reproductive health with its dimensions) in Egypt, while in Saudi Arabia when current age increased, (relation with husband and relation with husband's family; sexual education, breastfeeding & weaning, and reproductive health) improved, this result may be explained to customs, traditions and cultural of Saudi society, which played an important role to determine girls′ age at marriage, and also (Jeannette, 2009) said that determined of woman's age at marriage may be based on circumstances nature which experienced by human societies, and the absence of female or male rights in the decision of marriage, and older people controlled making such decisions.

Selection and peer review by the scientific conference committee under responsibility of the Australian Society for Commerce, Industry and Engineering

In Egypt when husband's education increased, (relation with husband's family, relation with wife's family, and family relations; child's care and reproductive health) improved, while in Saudi Arabia when husband's education increased, (relation with husband's family, relation with husband, relation with classmates, relation with children, and family relations) improved. This finding is in accordance with previous study which showed that People with higher levels of education have more friends in their social relations (Bastani, 2007; Wortley, 1996).

In Egypt when income increased, (sexual education and mother's nutritional care; relation with classmates) improved, and in Saudi Arabia when income increased, (child's care and mother's nutritional care; relation with husband's family) improved, and as a result of income increased, opportunities were available to girl to get information sources of different sexual education, improving nutritional awareness, and get healthy and variety meals, which helped to improve nutritional care for her, her children, and her family and also improving social and personal relations, because there were no physical problems and providing opportunities to social visits and communications, which supported relations. Bastani (2007) showed that education and income are negatively related to the number of kin in social relations, people who have lower levels of education and income, have a larger number of kin in their social relations.

In Egypt there was no statistically significant correlation between marriage duration and each of (family relations with their dimensions and reproductive health with its dimensions), but in Saudi Arabia when marriage duration increased, (breastfeeding & weaning, sexual education, and reproductive health) improved, this result may be explained to Social legacies in Saudi society which based on marriage of girls at early age and create family become in the first rank of priorities, but girls in Egyptian society have several concerns between study and upgrade education level, success in their work, and create social and economic status, so the result which appear in research reflects the obvious difference in the Societal culture, customs, and traditions between two countries.

In Egypt when girl's age at marriage increased, family relations with their dimensions (relation with husband, relation with wife's family, and family relations; family planning) improved, but in Saudi Arabia when girl's age at marriage increased, relation with husband's family improved. The study of (Klingberg-Allvin et al., 2008) explained that the married respondents at an early age couldn't make decisions about pregnancy & childbirth and the use of contraceptive. The rising of woman's age at marriage is often concern with rising of her life experience, awareness, and independence, so she adopted attitudes that supported organizing her family and her ability to use contraceptive safely and effectively (Blanc & Way, 1998) and the importance of the roles that could be played in her family and ability to make her family Decisions, especially reproductive issues (Kim et al., 1998). the results of (Miller, 1993) study explained that early marriage for woman significantly contributes to narrow her chances in life, such as her education and work chances, and also negatively affects on both mother's and baby's health.

In Egypt when number of family members increased, (relation with husband and family relations; child's care, breastfeeding & weaning, and reproductive health) improved, and in Saudi Arabia when number of family members increased, (relation with husband & his family and family relations; child's care) improved, the researchers explained that result to the nature of Arab societies of careful on family bonding and kinship and its impact on the improvement of expertise and ideas and make decisions because family members depending on consultation in various matters, which contributes to improve awareness and benefit from experiences of others and circle breadth of life maturity.

In both countries Egypt and Saudi Arabia, when girls improved relation with her husband and his family, they were getting better in (sex education, pregnancy and childbirth, breastfeeding and weaning, mother's nutritional care, child's care and reproductive health), and have better family planning in Egypt only, which an important indicator for good relation and understanding between couple to make harmonious family decisions and agreed between them without tension. Husbands involvement in promoting reproductive health by participating in the use of contraception and support the health of women in pregnancy and childbirth, and child care (exceptions include Bloom et al., 2000; Wall, 1998; Johansson et al., 1998). The participation of husbands in the field of sexual and reproductive health of women reflected increasingly important in the field of international health, which confirms that man's participation was essential in health care programs that aim to improve woman's sexual, reproductive health, and health of newborns (Klingberg-Allvin et al., 2012).

In Egypt when relation with wife's family improved, (family planning, pregnancy & childbirth, breastfeeding & weaning, mother's nutritional care, child's care, and reproductive health) improved, and in Saudi Arabia sexual education improved. Musalia (2006) indicated that women used to consult with kin about a wide array of things going on their lives for example child's care.

In Egypt when (relation with neighbors, relation with classmates, relation with children, and family relations) improved, (sexual education, family planning, pregnancy & childbirth, breastfeeding & weaning, mother's nutritional care, child's care, and reproductive health) improved. In Saudi Arabia when relation with classmates improved, (sexual education, pregnancy & childbirth, child's care, and reproductive health) improved, when

Selection and peer review by the scientific conference committee under responsibility of the Australian Society for Commerce, Industry and Engineering

relation with neighbors improved, family planning worsened and (sexual education, mother's nutritional care, child's care, and reproductive health) improved, when relation with children improved, family planning worsened and (sexual education, breastfeeding & weaning, mother's nutritional care, child's care, and reproductive health) improved, and when family relations improved, (sexual education, pregnancy & childbirth, breastfeeding & weaning, mother's nutritional care, child's care, and reproductive health) improved.

In Egypt there were no differences between girls enrolled in practical and theoretical study in each of (relation with husband, relation with husband's family, relation with wife's family, relation with classmates, relation with neighbors, relation with children, and family relations; sexual education, family planning, pregnancy & childbirth, breastfeeding & weaning, mother's nutritional care, child's care, and reproductive health), while there were differences in Saudi Arabia because Girls were enrolled in practical disciplines more superior than girls enrolled in theoretical disciplines in breastfeeding & weaning.

Also girls from Saudi Arabia excelled on girls from Egypt in each of (relation with husband's family, relation with wife's family, relation with children, and family relations; pregnancy & childbirth, child's care, and reproductive health), while girls from Egypt excelled on girls from Saudi Arabia in each of relation with neighbors and family planning.

In Egypt the variable relation with children was the first order impact on reproductive health, husband's education was the second order, number of family members was the third order, followed by age when marriage and relation with neighbors, while in Saudi Arabia the variable husband's education was the first order impact on reproductive health, relation with children was the second order, current age was the third order, followed by relation with wife's family and family relations. Husbands′ education affected on maternal health (Mullany, 2006). Husbands need to training sessions related to women's reproductive health due to the low knowledge levels and imbalance in decision-making between men and women in many societies (Mullany et al., 2005; Singh et al. 1998; Sternberg & Hubley, 2004). Mundigo (2000) & De Schutter (2000) showed the importance of programs development related to husbands participation in reproductive health for women.

6. Conclusion

The family must be guided their sons especially girls who will be married to correct information with respect to family relations and reproductive health. Health and educational institutions such as care centers for maternal and child, health centers, hospitals and universities must be organized several symposium and training programs for youth about family relations and reproductive. Providing awareness programs for parents and sons to spread correct concepts of family relations and reproductive health through cooperation among media, universities, and families and benefit from results of scientific researches in this field. Based on the results of current study, which pointed to the importance of supporting reproductive health of girls who married at early age through the provision of adequate and accurate information about their roles through family relations network in their social surrounding.

Reference

Aboul-Enein, B. H. & Aboul-Enein, F. H. (2010). The cultural gap delivering health care services to Arab American populations in the United States. *Journal of cultural diversity,* **17,** 20-23.

AbouZahr, C. (1999). Some thoughts on ICPD + 5. *Bulletin World Health Organization,* **77,** 767-770.

Adlakha, A., Ayad, M. & Kumar, S. (1991) The role of nuptiality in fertility decline: a comparative analysis. *Demographic and Health Surveys World Conference* Washington DC.

Al-Krenawi, A. & Graham, J. R. (1996) Tackling mental illness: Roles for old and new disciplines. *World Health Forum.* (pp. 246-248): Geneva: World Health Organization, 1980-1998.

Al-Krenawi, A. & Graham, J. R. (1997). Social work and blood vengeance: The Bedouin-Arab case. *British Journal of Social Work,* **27,** 515-528.

Aoyama, A. (2001). *Reproductive health in the Middle East and North Africa: well-being for all,* Washington, DC: World Bank.

Ardelt, M. & Eccles, J. S. (2001). Effects of mothers' parental efficacy beliefs and promotive parenting strategies on inner-city youth. *Journal of Family issues,* **22,** 944-972.

Aroian, K. J., Katz, A. & Kulwicki, A. (2006). Recruiting and retaining Arab Muslim mothers and children for research. *Journal Nursing Scholarship,* **38,** 255-261.

Barakat, H. (1993). *The Arab world: Society, culture, and state*: University of California Press.

Basit, T. N. (1997). I Want More Freedom, but Not Too Much': British Muslim girls and the dynamism of family values. *Gender and Education,* **9,** 425-440.

Selection and peer review by the scientific conference committee under responsibility of the Australian Society for Commerce, Industry and Engineering

Bastani, S. (2007). Family comes first: Men's and women's personal networks in Tehran. *Social Networks,* **29,** 357-374.

Bauernfeind, H. (2002). The role of the family in Arab countries *Jörg Aldinger*.

Behrman, J. R. & Wolfe, B. L. (1987). How does mother's schooling affect family health, nutrition, medical care usage, and household sanitation? *Journal of Econometrics,* **36,** 185-204.

Binghalib, Y. (2011) Family dynamics between Arab Muslim parents, Western parents and their bi-ethnic children. Sacramento: California State University.

Blanc, A. K. & Way, A. A. (1998). Sexual behavior and contraceptive knowledge and use among adolescents in developing countries. *Studies in family planning,* **29,** 106-116.

Bloom, S. S., Tsui, A., Plotkin, M. & Bassett, S. (2000). What husbands in northern India know about reproductive health: correlates of knowledge about pregnancy and maternal and sexual health. *Journal of Biosocial Science,* **32,** 237-251.

Bosma, H., Appels, A., Sturmans, F., Grabauskas, V. & Gostautas, A. (1995). Educational level of spouses and risk of mortality: the WHO Kaunas-Rotterdam Intervention Study (KRIS). *International Journal of Epidemiology,* **24,** 119-126.

Bott, S., Jejeebhoy, S., Shah, I. & Puri, C. (2003). *Towards adulthood: exploring the sexual and reproductive health of adolescents in South Asia,* Geneva, Switzerland: World Health Organization.

Brazelton, T. B. (1986). Issues for working parents. *American Journal of Orthopsychiatry,* **56,** 14-25.

Burchinal, M. R., Roberts, J. E., Riggin, R., Jr., Zeisel, S. A., Neebe, E. & Bryant, D. (2000). Relating quality of center-based child care to early cognitive and language development longitudinally. *Child Development,* **71,** 339-357.

Carter, M. (2002). Husbands and maternal health matters in rural Guatemala: wives' reports on their spouses' involvement in pregnancy and birth. *Social Science & Medicine,* **55,** 437-450.

Chandra-Mouli, V., Camacho, A. V. & Michaud, P.-A. (2013). WHO guidelines on preventing early pregnancy and poor reproductive outcomes among adolescents in developing countries. *Journal of Adolescent Health,* **52,** 517-522.

Cohen, S. & Wills, T. A. (1985). Stress, social support, and the buffering hypothesis. *Psychological Bulletin,* **98,** 310-357.

Crabtree, S. A. (2007). Culture, gender and the influence of social change amongst Emirati families in the United Arab Emirates. *Journal of Comparative Family Studies,* **38,** 575-587.

Cubbins, L. A. & Szaflarski, M. (2001). Family effects on self-reported health among Russian wives and husbands. *Social Science & Medicine,* **53,** 1653-1666.

Cutrona, C. E. & Suhr, J. A. (1992). Controllability of stressful events and satisfaction with spouse support behaviors. *Communication Research,* **19,** 154-174.

De Schutter, M. M. A. (2000). El Debate en Am!erica Latina sobre la Participaci!on de los Hombres en Programas de Salud Reproductiva. *Revista Panamericana de Salud Publica,* **7,** 418–424.

DeJong, J., Jawad, R., Mortagy, I. & Shepard, B. (2005). The sexual and reproductive health of young people in the Arab countries and Iran. *Reproductive Health Matters,* **13,** 49-59.

Egeland, G. M., Tverdal, A., Meyer, H. E. & Selmer, R. (2002). A man's heart and a wife's education: a 12-year coronary heart disease mortality follow-up in Norwegian men. *International Journal of Epidemiology,* **31,** 799-805.

El Saadawi, N. (1995). Dissidence and creativity. *Women: A Cultural Review,* **6,** 1-17.

El-Haddad, Y. (2003) Major trends affecting families in the Gulf countries UNDESA.

El-Kak, F. (2013). Sexuality and sexual health: constructs and expressions in the Extended Middle East and North Africa. *Vaccine,* **31,** G45-G50.

Engender Health (2003) Men as partners in reproductive health in Nepal. Katmandu. Nepal: Engender Health.

Feinberg, M. E. (2003). The Internal Structure and Ecological Context of Co-parenting: A Framework for Research and Intervention. *Parenting Science Practice,* **3,** 95-131.

Fernea, E. W. (1985). *Women and the family in the Middle East: new voices of change*: University of

Selection and peer review by the scientific conference committee under responsibility of the Australian Society for Commerce, Industry and Engineering

Texas Press.

Fischer, C. S. & Oliker, S. J. (1983). Research note on friendship, gender, and the life cycle, *Soc. F.,* **62,** 124.

Gittelsohn, J. (1991). Opening the box: intrahousehold food allocation in rural Nepal. *Social Science & Medicine,* **33,** 1141-1154.

Haboush, K. L. (2007). Working with Arab American families: Culturally competent practice for school psychologists. *Psychology in the Schools,* **44,** 183-198.

Haj-Yahia, M. M., Musleh, K. & Haj-Yahia, Y. M. (2002). The incidence of adolescent maltreatment in Arab society and some of its psychological effects. *Journal of Family issues,* **23,** 1032-1064.

Harris, C. & Smyth, I. (2001). The reproductive health of refugees: lessons beyond ICPD. *Gender & Development,* **9,** 10-21.

Harrison, G. G., Zaghloul, S. S., Galal, O. M. & Gabr, A. (1993). Breastfeeding and weaning in a poor urban neighborhood in Cairo, Egypt: maternal beliefs and perceptions. *Social Science & Medicine,* **36,** 1063-1069.

Hobcraft, J. N., McDonald, J. W. & Rutstein, S. O. (1984). Socio-economic factors in infant and child mortality: a cross-national comparison. *Population Study (Camb),* **38,** 193-223.

International Center for Research on Women (2004) When Marriage Is No Haven: Child Marriage in Developing Countries. Washington, DC: International Center for Research on Women. Retrieved from http://www.iiav.nl/epublications/2004/When_marriage_is_no_haven.pdf

Jain, S. & Kurz, K. (2007) New Insights on Preventing Child Marriage :A global analysis of factors and programs. (pp. 1-52), Washington, DC: International Centre for Research on Women.

Jeannette, B. (2009) Early marriage and the consequences on women. UNICEF and Population Council.

Jensen, R. & Thornton, R. (2003). Early female marriage in the developing world. *Gender & Development,* **11,** 9-19.

Jödicke, D. & Werner, K. (1996). *KulturSchock Ägypten,* Bielefeld: Reise-Know-How-Verlag.

Johansson, A., Nga, N. T., Huy, T. Q., Dat, D. D. & Holmgren, K. (1998). Husbands' involvement in abortion in Vietnam. *Studies in Family Planning,* **29,** 400-413.

Jones, T. L. & Prinz, R. J. (2005). Potential roles of parental self-efficacy in parent and child adjustment: a review. *Clinical Psychology Review,* **25,** 341-363.

Joung, I. M., van der Meer, J. B. & Mackenbach, J. P. (1995). Marital status and health care utilization. *International Journal of Epidemiology,* **24,** 569-575.

Kaddour, A., Hafez, R. & Zurayk, H. (2005). Women's perceptions of reproductive health in three communities around Beirut, Lebanon. *Reproductive Health Matters,* **13,** 34-42.

Kamal, S. M. & Hassan, C. H. (2013). Child Marriage and Its Association With Adverse Reproductive Outcomes for Women in Bangladesh. *Asia Pacific Journal Public Health***,** 1-15.

Kiecolt-Glaser, J. K. & Newton, T. L. (2001). Marriage and health: his and hers. *Psychological Bulletin,* **127,** 472-503.

Kim, Y. M., Kols, A. & Mucheke, S. (1998). Informed choice and decision-making in family planning counseling in Kenya. *International Family Planning Perspectives,* **24,** 4-11, 42.

Kirby, D. (2001). Understanding what works and what doesn't in reducing adolescent sexual risk-taking. *Family planning perspectives,* **33,** 276-281.

Klingberg-Allvin, M., Berggren, V., Binh, N. T., Bijay, B. & Johansson, A. (2012). Married men's first time experiences of early childbearing and their role in sexual and reproductive decision making: a qualitative study from rural Vietnam. *Culture, Health & Sexuality,* **14,** 449-461.

Klingberg-Allvin, M., Binh, N., Johansson, A. & Berggren, V. (2008). One foot wet and one foot dry transition into motherhood among married adolescent women in rural Vietnam. *Journal of Transcultural Nursing,* **19,** 338-346.

Lacoste-Dujardin, C. (1996). *Des mères contre les femmes: maternité et patriarcat au Maghreb,* Paris: La découverte.

Selection and peer review by the scientific conference committee under responsibility of the Australian Society for Commerce, Industry and Engineering

Levine, R., Lloyd, C., Greene, M. & Grown, C. (2008) Girls Count: A Global Investment & Action Agenda. Washington, DC: Center for Global Development.

Libbus, K., Bush, T. A. & Hockman, N. M. (1997). Breastfeeding beliefs of low-income primigravidae. *International Journal of Nursing Studies,* **34,** 144-150.

Lush, L., Cleland, J., Walt, G. & Mayhew, S. (1999). Integrating reproductive health: myth and ideology. *Bulletin World Health Organization,* **77,** 771-777.

Lynch, J. W., Kaplan, G. A. & Salonen, J. T. (1997). Why do poor people behave poorly? Variation in adult health behaviours and psychosocial characteristics by stages of the socioeconomic life course. *Social Science & Medicine,* **44,** 809-819.

Macfarlane, A. (1986). *Marriage and love in England: modes of reproduction 1300-1840,* Oxford: Basil Blackwell Ltd.

Mannel, R., Martens, P. J. & Walker, M. (2012). *Core Curriculum for Lactation Consultant Practice,* United States: Jones & Bartlett Learning, LLC.

Marsden, P. V. & Hurlbert, J. S. (1988). Social resources and mobility outcomes: A replication and extension. *Social forces,* **66,** 1038-1059.

Martinez, G., Copen, C. E. & Abma, J. C. (2011). Teenagers in the United States: sexual activity, contraceptive use, and childbearing, 2006-2010 national survey of family growth. *Vital and health statistics. Series 23, Data from the National Survey of Family Growth***,** 1-35.

McGoldrick, M., Giordano, J. & Garcia-Preto, N. (2005). *Ethnicity and family therapy,* New York: Guilford Press.

McGuire, J. S. & Popkin, B. M. (1990). *Helping women improve nutrition in the developing world: beating the zero sum game*.

Miller, J. E. (1993). Birth outcomes by mother's age at first birth in the Philippines. *International Family Planning Perspectives,* **19,** 98-102.

Mollborn, S. & Morningstar, E. (2009). Investigating the Relationship between Teenage Childbearing and Psychological Distress Using Longitudinal Evidence. *Journal of Health and Social Behavior,* **50,** 310-326.

Monden, C. W., van Lenthe, F., De Graaf, N. D. & Kraaykamp, G. (2003). Partner's and own education: does who you live with matter for self-assessed health, smoking and excessive alcohol consumption? *Social Science & Medicine,* **57,** 1901-1912.

Moore, G. (1990). Structural determinants of men's and women's personal networks. *American sociological review,* **55,** 726-735.

Motee, A., Ramasawmy, D., Pugo-Gunsam, P. & Jeewon, R. (2013). An assessment of the breastfeeding practices and infant feeding pattern among mothers in Mauritius. *Journal of nutrition and metabolism,* **2013,** 1-8.

Mourad, M. R. & Carolan, M. T. A. (2010). An ecological approach to culturally sensitive intervention for Arab American women and their families. *The Family Journal,* **18,** 178-183.

Muleta, M. (2006). Obstetric fistula in developing countries: a review article. *Journal of Obstetrics & Gynaecology Canada,* **28,** 962-966.

Mullany, B. C. (2006). Barriers to and attitudes towards promoting husbands' involvement in maternal health in Katmandu, Nepal. *Social Science Medicine,* **62,** 2798-2809.

Mullany, B. C., Hindin, M. J. & Becker, S. (2005). Can women's autonomy impede male involvement in pregnancy health in Katmandu, Nepal? *Social Science & Medicine,* **61,** 1993-2006.

Mundigo, A. I. (2000). Re-conceptualizing the role of men in the post-Cairo era. *Culture, Health & Sexuality,* **2,** 323-337.

Musalia, J. (2006). Gender, children, and family planning networks in Kenya. *The Social Science Journal,* **43,** 167-172.

Nasreddine, L., Zeidan, M. N., Naja, F. & Hwalla, N. (2012). Complementary feeding in the MENA region: practices and challenges. *Nutrition Metabolism Cardiovascular Diseases,* **22,** 793-798.

Nasrullah, M., Muazzam, S., Bhutta, Z. A. & Raj, A. (2014). Girl child marriage and its effect on

Selection and peer review by the scientific conference committee under responsibility of the Australian Society for Commerce, Industry and Engineering

fertility in Pakistan: findings from Pakistan Demographic and Health Survey, 2006-2007. *Maternal and Child Health Journal,* **18,** 534-543.

National Health and Medical Research Council (2013). *Eat For Health: Australian Dietary Guidelines,* Canberra: National Health and Medical Research Council.

Paranjothy, S., Broughton, H., Adappa, R. & Fone, D. (2009). Teenage pregnancy: who suffers? *Archives of Disease in Childhood,* **94,** 239-245.

Patton, G. C., Coffey, C., Sawyer, S. M., Viner, R. M., Haller, D. M., Bose, K., Vos, T., Ferguson, J. & Mathers, C. D. (2009). Global patterns of mortality in young people: a systematic analysis of population health data. *Lancet,* **374,** 881-892.

Population Council (2010) Youth/transitions to adulthood, child marriage. Population Council. Retrieved from http://www.popcouncil.org/topics/youth_childmarriage.asp

Population Council (2011) Survey of young people in Egypt. (pp. 1-327), New York: Population Council. Retrieved from http://www.popcouncil.org/uploads pdfs/2010PGY_SYPEFinalReport.pdf

Psacharopoulos, G. & Patrinos, H. A. (2004). Returns to investment in education: a further update. *Education economics,* **12,** 111-134.

Public Statistics Authority (1402 Hijri) Estimate of Population Growth and Demographic Characteristics in the Kingdom of Saudi Arabia. Kingdom of Saudi Arabia: Public Statistics Authority.

Quisumbing, A. R., Brown, L. R., Feldstein, H. S., Haddad, L. & Peña, C. (1995) Women: The key to food security. (pp. 7-22), Washington, D.C.: International food Policy research institute.

Rebzani, M. (1997). *La vie familiale des femmes algériennes salariées*: Editions L'Harmattan.

Reiss, D. & Oliveri, M. E. (1983). The Family's Construction of Social Reality and Its Ties to Its Kin Network: An Exploration of Causal Direction. *Journal of Marriage and the Family,* **45,** 81.

Rihani, M. (2006). Keeping the Promise: Five Benefits of Girls' Secondary Education. *Academy for Educational Development*.

Robinson-Wood, T. (2008). *The Convergence Of Race, Ethnicity, And Gender: Multiple Identities In Counseling*: Prentice Hall.

Rogers, R. G. (1996). The effects of family composition, health, and social support linkages on mortality. *Journal of Health and Social Behavior,* **37,** 326-338.

Rossi, A. S. & Rossi, P. H. (1990). *Of human bonding: Parent-child relations across the life course,* New York: Aldine de Gruyter.

Roudi-Fahimi, F. (2003). *Women's reproductive health in the Middle East and North Africa,* Washington, DC: Population Reference Bureau.

Roudi-Fahimi, F., Ashford, L. & Khalil, K. (2008) Advancing research to inform reproductive health policies (The Middle East and North Africa). USA: Population Reference Bureau.

Saied, H., Mohamed, A., Suliman, A. & Al Anazi, W. (2013). Breastfeeding knowledge, Attitude and Barriers among Saudi Women in Riyadh. *Journal of Natural Sciences Research,* **3,** 6-13.

Santhya, K., Ram, U., Acharya, R., Jejeebhoy, S. J., Ram, F. & Singh, A. (2010). Associations between early marriage and young women's marital and reproductive health outcomes: evidence from India. *International Perspectives on Sexual & Reproductive Health,* **36,** 132-139.

Save the Children (2004) State of the world's mothers: Children having children. (pp. 1-38), Washington: Save the Children. Retrieved from http://www.ungei.org/SaveTheChildren_SOWM_2004 _final.pdf

Scarr, S. (1998). American child care today. *Am Psychol,* **53,** 95-108.

Schuler, S. R., Bates, L. M., Islam, F. & Islam, M. K. (2006). The timing of marriage and childbearing among rural families in Bangladesh: Choosing between competing risks. *Social Science & Medicine,* **62,** 2826-2837.

Sedigh-Sarvestani, R. (1991) Barresi-i Jamehshenakhti-i Ravabete Hamsaiegi dar Tehran. Tehran: University of Tehran.

Singh, K. K., Bloom, S. S. & Tsui, A. O. (1998). Husbands' reproductive health knowledge, attitudes, and behavior in Uttar Pradesh, India. *Studies in Family Planning,* **29,** 388-399.

Selection and peer review by the scientific conference committee under responsibility of the Australian Society for Commerce, Industry and Engineering

Smith, C. A., Stone, R. P. & Kahando, S. (2012). A model of women's educational factors related to delaying girls' marriage. *International Review of Education,* **58,** 533-555.

Sternberg, P. & Hubley, J. (2004). Evaluating men's involvement as a strategy in sexual and reproductive health promotion. *Health promotion international,* **19,** 389-396.

Stolzenberg, R. M. (2001). It's about Time and Gender: Spousal Employment and Health1. *American Journal of Sociology,* **107,** 61-100.

Suleiman, D. (2006) The phenomenon of change in Algerian family, relationships. *Popular culture.* Algeria: Abu Bakr Belcaid.

Timmer, S. G. & Veroff, J. (2000). Family Ties and the Discontinuity of Divorce in Black and White Newlywed Couples. *Journal of Marriage and Family,* **62,** 349-361.

Umberson, D. (1992). Gender, marital status and the social control of health behavior. *Social Science & Medicine,* **34,** 907-917.

United Nations (1990) Convention on the Rights of the Child on 20 November 1989. (pp. 3), New York: United Nations General Assembly. Retrieved from https://treaties.un.org/ doc/Publication/ UNTS/Volume%201577/v1577.pdf

United Nations children's Emergency Fund (2001) Early Marriage, Child Spouses: Innocenti Digest. Florence, Italy: Innocenti Research Center.

United Nations children's Emergency Fund (2005). *Early Marriage A Harmful Traditional Practice A Statistical Exploration,* New York, USA: UNICEF. Retrieved from http://www.unicef.org/ publications/files/Early_Marriage_12.lo.pdf

United Nations Department of Economic and Social Affairs (2011) World Population Prospects: The 2010 Revision. New York: UNDESA.

United Nations Population Fund (2012) Marrying Too Young: End Child Marriage. (pp. 1-74), New York: United Nations Population Fund. Retrieved from http://www.unfpa.org/webdav/site/global/ shared/documents/publications/2012/MarryingTooYoung.pdf

Vernon-Feagans, L., Emanuel, D. C. & Blood, I. (1997). The effect of otitis media and quality of daycare on children's language development. *Journal of Applied Developmental Psychology,* **18,** 395-409.

Wall, L. L. (1998). Dead mothers and injured wives: the social context of maternal morbidity and mortality among the Hausa of northern Nigeria. *Studies in family planning,* **29,** 341-359.

Wellman, B. & Wortley, S. (1990). Different strokes from different folks: Community ties and social support. *American journal of Sociology,* **96,** 558-588.

Wellman, B. (1992a). Which types of ties and networks provide what kinds of social support. *Advances in group processes,* **9,** 207-235.

Wellman, B. (1992b). Men in networks: private communities, domestic friendships. *American Psychological Association,* **2,** 74-117.

World Health Organization & Van Lerberghe, W. (2008). *Primary Health Care: Now More Than Ever,* Switzerland: World Health Organization.

World Health Organization (1998) DALYs and Reproductive Health: Report of an informal consultation. Switzerland.

World Health Organization (2002) Broadening the horizon: Balancing protection and risk for adolescents. Geneva, Switzerland: World Health Organization, Department of Child and Adolescent Health and Development. Retrieved from http://whqlibdoc.who.int/hq/2001/WHO_FCH_CAH_01who .20.pdf

World Health Organization (2004) Reproductive health strategy to accelerate progress towards the attainment of international development goals and targets. In Reproductive Health Research (Ed.). Switzerland: World Health Organization.

World Health Organization (2011) Exclusive breastfeeding for six months best for babies everywhere. Geneva, Switzerland: World Health Organization. Retrieved from http://www.who.int/mediacentre/ news/statements/2011/breastfeeding_20110115/en/

World Health Organization (2013) Family planning. Retrieved from http://www.who.int/media

Selection and peer review by the scientific conference committee under responsibility of the Australian Society for Commerce, Industry and Engineering

centre/factsheets/fs351/en/

World Health Organization, Every Woman Every Child, Girls Not Brides, The Partnership for Maternal, Newborn & child Health, United Nations Foundation, United Nations Population Fund, United Nations Children's Emergency Fund, United Nations Women, World Vision & World Young Women's Christian Association (2013) Child marriages: 39 000 every day. New York: World Health Organization. Retrieved from http://www.who.int/mediacentre/news/releases/2013/ child marriage_ 20130307/en/

World Health Organization, United Nations population Fund & United Nations children's Emergency Fund (1997) Action for Adolescent Health: Towards a Common Agenda. Geneva, Switzerland: WHO, Center for Adolescent Health Retrieved from http://whqlibdoc.who.int/ hq/1997/WHO_FRH_ ADH _97.9.pdf

Wortley, S. (1996) Social Networks, Social Support and Substance abuse: Testing Social Ability and Disability Theories of Deviance. *Department of Sociology.* Toronto, Canada: University of Toronto.

Wyke, S. & Ford, G. (1992). Competing explanations for associations between marital status and health. *Social science & medicine,* **34,** 523-532.

Yaman, A., Mesman, J., van Ijzendoorn, M. H. & Bakermans-Kranenburg, M. J. (2010). Perceived family stress, parenting efficacy, and child externalizing behaviors in second-generation immigrant mothers. *Social Psychiatry and Psychiatric Epidemiology,* **45,** 505-512.

Selection and peer review by the scientific conference committee under responsibility of the Australian Society for Commerce, Industry and Engineering