

Couvade Syndrome Among Jordanian Expectant Fathers

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Abstract

Studies of different cultures have reported that expectant fathers experience physiological and psychological changes during their partner's pregnancy. These symptoms are classed as Couvade Syndrome (sympathetic pregnancy) symptoms. The main aim of this study was to determine the prevalence of Couvade Syndrome among Jordanian expectant fathers. A descriptive quantitative research design that utilized the Men's Health During Partners' Pregnancy (MHDPP) questionnaire was employed to collect data from three Maternal and Child Health Care Centers in public hospitals. A total of 449 participants completed the questionnaire. Descriptive statistics were used to describe the characteristics of the sample and the main variables. Chi-square tests were conducted to find the relationship between the pregnancy trimester and the specific Couvade Syndrome symptom. Jordanian expectant fathers experienced high rates of Couvade Syndrome (59.1%). The prevalence of Couvade Syndrome among the participants is considered to be the highest reported rate when compared to the results of previous studies. This rate may be due to the tendency among men in Jordan to have a strong desire for children soon after marriage and to have a strong commitment to family life. With a better understanding of the expectant father's response to pregnancy, health-care providers would be better able to provide them with the necessary support and education. This could contribute to the health and well-being of expectant fathers and their families.

Keywords

Couvade Syndrome, transition to parenthood, sympathetic pregnancy, phantom pregnancy, expectant fathers

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Couvade Syndrome (sympathetic pregnancy) is an involuntary disorder whereby an expectant father experiences physiological and/or psychological symptoms for which there is no explanation during the period of the transition to parenthood (Piechowski-Jozwiak & Bogousslavsky, 2018). It is distinguished from other syndromes by its time course (commences in the first trimester, temporarily disappears in the second trimester, and emerges again with greater severity in the third trimester) and the fact that it is not caused by illness or injury. Couvade Syndrome is not listed as a diagnostic category in the American *Diagnostic and Statistical Manual of Mental Disorders* or the World Health Organization's (WHO) *International Classification of Diseases*. In addition, it is not described or discussed in many medical textbooks, although a few handbooks in family practice mention it as a condition of unknown cause.

Couvade Syndrome is best examined from the anthropological perspective. The term “*couvade*” (from the French “*couver*,” meaning to brood, to hatch) was first used by the anthropologist Edward Burnett Tylor in 1865 to describe the child expectancy habits that he had

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observed among smaller scale communities (Kazmierczak, Kielbratowska, & Pastwa-Wojciechowska, 2013). Couvade Syndrome is used to describe a man's empathic responses to his wife's pregnancy (Ganapathy, 2014).

The prevalence of Couvade Syndrome varies between countries. An Australian study identified that 31% of Australian men are affected by Couvade Syndrome, while in the United Kingdom (UK) the incidence is 25% (Brennan, 2010). In Poland, most expectant fathers (72%) experience at least one of the symptoms of Couvade Syndrome during their partner's pregnancy (Kazmierczak et al., 2013).

Pregnancy constitutes one of the most critical periods for the expectant father. Indeed, impending fatherhood is one of the most crucial phases of human life (Mrayan, Cornis, Dhungana, & Parfitt, 2016). Various studies on different cultures have reported that expectant fathers may develop psychosomatic symptoms (Ganapathy, 2014) and may need professional support. An expectant father experiencing psychosomatic symptoms during his wife's pregnancy may not realize that there might be an association between his symptoms and his wife's pregnancy. Therefore, he might consider that he has an illness and seek medical help from a number of different medical specialists depending on the discomfort he is experiencing. Hence it is imperative that the relationship between the range of discomforts an expectant father might experience and his wife's pregnancy is made explicit in antenatal consultations. It is also essential to raise awareness to first-time expectant fathers about the syndrome and its transient nature. The debilitating and distressing nature of Couvade symptoms may deteriorate the quality of support men offer to their gestational partners with adverse health consequences. As such, some of these symptoms might affect the father's well-being or interfere with his daily activities. By offering information about possible Couvade symptoms, an expectant father may feel more comfortable about voicing his concerns and getting his needs met.

A review of the relevant literature revealed that no previous studies have been conducted on this issue in developing Arab countries, including Jordan. In Jordan, it is not culturally acceptable among expectant fathers to complain of signs and symptoms that are similar to signs and symptoms of pregnancy, or to reflect their wives complaints during pregnancy on themselves. This is because of the typical division of labor in the Jordanian culture and patriarchal community. These perceptions will lead to ignoring the signs and symptoms of the Couvade syndrome (sympathetic pregnancy) and its consequences that may affect their daily life activities and family relationships. Furthermore, the Arab world is historically and originally a strictly male-dominated culture where women are obligated to serve their husbands and children, and to do the

housework. So if the Couvade symptoms were neglected, depending on their type and severity, he might depend on his wife for help. Caring of the husband will add a burden on the pregnant woman's shoulders who, herself, needs care and support. While the husband's support to his wife during pregnancy empowers her and result in a better pregnancy and birth outcome (Mrayan, 2016). Therefore, identifying the prevalence of Couvade syndrome among Jordanian expectant fathers is important—to the fathers themselves, as well as to mothers and the wider community. It is important for health-care providers too, specifically maternity health-care providers, because by identifying and understanding the signs and prevalence of Couvade Syndrome, Jordanian fathers' adaptation to the transition to parenthood will be better understood and health-care providers will be aware of the potential association between the psychosomatic symptoms of expectant fathers and the transition to parenthood. Consequently, health-care providers will be able to develop health-care plans to support them as well as provide appropriate care and interventions to help them to overcome these signs and symptoms.

As the transition to fatherhood can be challenging, awareness of the factors facilitating or hindering expectant fathers' adjustment is important. Our aims were to determine the prevalence of Couvade syndrome among Jordanian expectant fathers, and to identify the most prevalent Couvade symptoms experienced by expectant fathers during this significant life transition period.

Methods

Design

A descriptive quantitative research design was used to identify the prevalence of Couvade syndrome among Jordanian expectant fathers. This non-experimental design approach was used because the independent variable was not manipulative. Expectant fathers were screened for Couvade syndrome by using an Arabic version of the Men's Health During Partner's Pregnancy (MHDPP) questionnaire (Brennan, 2010).

Setting

This research study was carried out in the major cities of Jordan, namely Amman, Al-Zarqa, and Irbid. Data were collected from three Maternal and Child Health Care (MCHC) centers in public hospitals, which were selected randomly from a list of hospitals with the highest birth rates (more than 6,000 births annually) based on Ministry of Health (MOH) statistics (MOH, 2011). Government MCHC centers were selected because the majority of pregnant women and their husbands receive antenatal

care in these centers. In Jordan, health dealings and the provision of all levels of care in both the public and private sectors are the responsibility of the MOH in accordance with Health Law No. 47 of 2008, which also stipulates that health insurance is provided for all pregnant Jordanian women (Department-of-Statistics[Jordan] & ICF-Macro, 2010).

Sample

The participants were selected by using a convenience sampling method. The sample was drawn from first-time fathers attending the antenatal clinic in the three hospitals under study. The participants were asked to participate in the study by the research assistants. The inclusion criteria were: first-time father, the wife is in a low-risk pregnancy category, and more than 12 gestational weeks. In total, 449 men completed the survey during the period of study, which ran from June 2015 to June 2016.

Research Instrument

The self-administered MHDPP questionnaire (Brennan, 2010) was used upon permission of the author. The questionnaire was originally developed in 2004 and originally consisted of 35 possible symptoms. Then, in 2008, Brennan conducted a two-phase study in the UK, the results of which were published in 2010. Phase I involved a qualitative phenomenological study of a purposive sample of 14 men who were interviewed to explore the characteristics of the syndrome and find explanations for it. Phase II sought to develop and pilot test a structured questionnaire based on the findings of the qualitative study in order to assess the physical and psychological symptoms of the syndrome in 23 purposefully selected male partners of pregnant women. The questionnaire was completed repeatedly over two time periods. The Cronbach's α coefficient of reliability test for the total scale was 0.89. Other tests of internal consistency showed high reliability and validity, except for nine items, which were subsequently removed from the final amended questionnaire, resulting in 26 symptoms; 13 physical and 13 psychological (see Appendix 1).

The 13 physical symptoms are *heartburn, tiredness, back pain, leg cramps, increased appetite, stomach distension, weight gain, toothache, inability to keep food down, vomiting, indigestion, poor appetite, and weight loss*. The 13 psychological symptoms include *feeling anxious, feeling low in mood, mood swings, feeling stressed, feeling preoccupied, early morning waking, feeling irritable, feeling annoyed, loss of concentration, lack of motivation, sleeping less than usual, feeling frustrated, and sleeping more than usual*. The questionnaire

measures the presence of these 26 symptoms nominally (i.e., yes or no) in the last 3 months.

In our study, as per Brennan (2010), we instructed the participants as follows: "Please tick (✓) the appropriate box to indicate whether you experienced any of the following health problems in the last 3 months." This was followed by further guidance: "...if yes, please indicate how severe, how distressing, and how often by ticking the following appropriate boxes." This study followed Brennan (2010) and considered that any man who stated that he experienced eight or more physiological and/or psychological signs and symptoms of Couvade syndrome during his wife's pregnancy presented for Couvade syndrome.

The questionnaire was originally developed in the English language, so it was translated into the Arabic language for the purpose of this study. To ensure that the final version of the questionnaire was suitable for use in the Jordanian context, the WHO (2005) guidance on the translation and adaptation of research instruments was followed, which includes the following steps: forward translation, expert panel feedback, back translation, pre-testing, and cognitive interview (Abujilban, Sinclair, & Kernohan, 2012). A reliability test re-test was also conducted to ensure the stability of the Arabic version of the questionnaire.

Subject Recruitment and Data Collection Procedure

The primary investigator trained three research assistants on how to recruit and interview the participants. The research assistants approached all the expectant fathers who had low-risk pregnant wives when they came to the antenatal clinic on a regular visit. All fathers who met the three inclusion criteria were asked to participate in the study. The inclusion criteria were that the men should be living with their wives during the pregnancy period, have no previous mental or physical illness, and have no previous history of fertility complications. Men who were not living with their wives or who had any health or mental problems were excluded from the study. These criteria were chosen in order to decrease the effect of confounding variables on the findings (Brennan, Ayers, Ahmed, & Marshall-Lucette, 2007).

Data Analysis

The Statistical Package for Social Sciences (version 23) was used to analyze the data, after ensuring that the data were complete and clean. Descriptive statistics (mean and frequency distribution) were used to describe the characteristics of the sample and the main variables. Chi-square tests were conducted to find the relationship

between the pregnancy trimester and the specific Couvade Syndrome symptoms. The significance level was set to be $p < .05$.

Ethical Considerations

Human rights were protected in this study. The consent of the Hashemite University and the MOH's Institutional Review Board was gained before commencement of the study. The details of the study were fully disclosed to all the participants before gaining their agreement on participation. The research assistants were available all the time during the filling of the questionnaires to answer participants' questions. Participants were assured that their participation was entirely voluntary and that they could refuse to answer any question and withdraw from the study at any time without giving any explanation and that their withdrawal would not affect their health-care provision. To ensure anonymity, all the men were asked not to write their names or any identifying details on the questionnaire. The benefit of the study for the participants was the satisfaction of giving information that could be helpful for others in the same condition. No harm was expected from participation in this study. It was arranged that any participant who experienced a problem as a result of his participation would be provided with an appropriate referral to a health-care service with the agreement of the participant and his health-care provider. This study was a part of a larger project which will find the relationship between participants' demographics and the Couvade Syndrome signs and symptoms.

Results

A total of 449 men completed the study questionnaire. Participants' ages ranged from 19 to 63 years (mean = 32.5, $SD = 7.3$). The majority of the participants ($n = 298$, 66.4%) were educated in high school or above. All participants were married and their wives were in their second or third trimester: 172 (38.3%) wives were in their second trimester and 277 (61.7%) were in their third trimester. Most of the participants' ($n = 88.6%$) monthly household income ranged between \$70 and \$1,974 (mean = \$465, $SD = \$213$), which was considered below the national poverty level (\$970; Department of Statistics, 2010). A total of 252 (56.1%) lived in their own home and the others lived with their families. Only 66 (14.7%) had loans at the time of the study.

Out of the 449 participants, 271 (60.4%) had no illness. Participants' current weight ranged between 50 and 175 kg (mean = 79.2, $SD = 13.3$) while their weight when they got married ranged between 44 and 172 kg (mean = 74.4, $SD = 11.6$). Seventy-eight (17.4%) were going to be first-time fathers, and the rest of them already

had two children or more. Only 94 participants (20.9%) had a planned pregnancy. As regards their experience of the symptoms of Couvade Syndrome, 259 (57.7%) reported eight or more physical and/or psychological symptoms which coincided with their wife's pregnancy.

By using frequency distribution tests, the findings revealed that *heartburn* ($n = 218$, 72.4%) was the most reported physical symptoms experienced by Jordanian expectant fathers, followed by *tiredness* ($n = 208$, 69.3%), *back pain* ($n = 204$, 68%), *leg cramps* ($n = 168$, 56%), and *increased appetite* ($n = 168$, 55.8%; see Table 1a).

As for the psychological symptoms, participants mostly experienced *feeling anxious* ($n = 203$, 67.4%) during their wife's pregnancy, followed by the symptoms of *low in mood* ($n = 184$, 60.9%) and *mood swings* ($n = 177$, 58.9%). Participants also experienced *feeling stressed* ($n = 176$, 58.5%), *being preoccupied* ($n = 174$, 58%), and *early morning waking* ($n = 152$, 50.5%; see Table 1b).

Chi-square tests were conducted to determine the relationship between the pregnancy trimester and the specific Couvade Syndrome symptom. The analysis showed no significant association between the Couvade symptoms and a specific trimester except of *heartburn* which was significantly more experienced by the expectant fathers in the third trimester. The corrected value was 6.98, with an associated significance level of .008. The value of .008 is smaller than the alpha value of .05. See Table 2.

Discussion

The findings of this research indicated that participants experienced high rates of both the physical and psychological symptoms of pregnancy (59.1%), although the term "Couvade Syndrome" is not known in Jordan. For more representativeness of all Jordanian people, probably a larger sample from different Jordan cities is favored.

Based on the data analysis, the prevalence of Couvade Syndrome among the participants in our study was very high compared to elsewhere. For example, the prevalence of Couvade Syndrome in the UK has been estimated between 11% and 50%, although it should be noted that all the data are some decades old (Klein, 1991). In Australia, the proportion of expectant fathers presenting symptoms of Couvade Syndrome is 31%, in the United States it is between 25 and 52%, and in Sweden it is 20% (Bogren, 1984), while in Thailand an estimated 61% of expectant fathers are reported to have Couvade Syndrome (Khanobdee, Sukratanachaiyakul, & Gay, 1993). In Poland, 72% of expectant fathers experience at least one of the signs of Couvade Syndrome during their wife's pregnancy (Kazmierczak et al., 2013). However, in some international studies (Kazmierczak et al., 2013), the

Table Ia. Frequency of Physical Symptoms of Couvade Syndrome Among Married Males.

Physiological Couvade Symptom	n	Percentage	Mild Severe	Moderate Severe	Extremely Severe	Mild Distressing	Moderate Distressing	Severe Distressing
1 Heartburn	218	72.4%	15 (3.3%)	162 (36.1%)	43 (9.6%)	23 (5.1%)	157 (35.5%)	39 (8.7%)
2 Tiredness	208	69.3%	20 (4.5%)	175 (39%)	63 (14%)	37 (8.2%)	169 (37.6%)	50 (11.1%)
3 Back pain	204	68%	21 (4.7%)	188 (41.9%)	42 (9.4%)	30 (6.7%)	179 (39.9%)	42 (9.4%)
4 Leg cramps	168	56%	23 (5.1%)	151 (33.6%)	39 (8.7%)	26 (5.8%)	151 (33.6%)	36 (8%)
5 Increased appetite	168	55.8%	20 (4.5%)	116 (25.8%)	31 (6.9%)	61 (13.6%)	96 (21.4%)	8 (1.8%)
6 Stomach distension	148	49.2%	13 (2.9%)	137 (30.5%)	18 (4%)	24 (5.3%)	126 (28.1%)	17 (3.8%)
7 Weight gain	136	45.2%	29 (6.5%)	135 (30.1%)	8 (1.8%)	49 (10.9%)	106 (23.6%)	14 (3.1%)
8 Toothache	192	43%	21 (4.7%)	142 (31.6%)	28 (6.2%)	26 (5.8%)	133 (29.6%)	32 (7.1%)
9 Being unable to keep food down	126	42%	22 (4.9%)	125 (27.8%)	13 (2.9%)	27 (6%)	116 (25.8%)	16 (3.6%)
10 Vomiting	126	41.7%	24 (5.3%)	113 (25.3%)	15 (3.3%)	23 (5.1%)	116 (25.8%)	12 (2.7%)
11 Indigestion	96	32%	12 (2.7%)	107 (23.8%)	7 (1.6%)	13 (2.9%)	105 (23.4%)	8 (108%)
12 Poor appetite	71	23.5%	12 (2.7%)	83 (18.5%)	12 (2.7%)	27 (6%)	69 (15.4%)	9 (2%)
13 Weight loss	39	12.9%	18 (4%)	44 (9.8%)	3 (0.7%)	24 (5.3%)	37 (8.2%)	2 (0.4%)

Table Ib. Frequency of Psychological Symptoms of Couvade Syndrome Among Married Males.

Psychological Couvade Symptom	n	Percentage	Mild Severe	Moderate Severe	Extremely Severe	Mild Distressing	Moderate Distressing	Severe Distressing
1 Feeling anxious	203	67.4%	19 (4.2%)	176 (39.2%)	33 (7.3%)	28 (6.2%)	160 (35.6%)	38 (8.5%)
2 Feeling low in mood	184	60.9%	27 (6%)	175 (39%)	35 (7.8%)	34 (7.6%)	163 (36.3%)	38 (8.5%)
3 Mood swings	177	58.8%	28 (6.2%)	177 (39.4%)	39 (8.7%)	35 (7.8%)	176 (39.2%)	31 (6.9%)
4 Feeling stressed	176	58.5%	19 (4.2%)	157 (35%)	56 (12.5%)	23 (5.1%)	142 (31.6%)	64 (14.3%)
5 Feeling preoccupied	174	58%	25 (5.6%)	167 (37.2%)	53 (4.8%)	37 (8.2%)	158 (35.2%)	49 (10.9%)
6 Early morning waking	152	50.5%	47 (10.5%)	139 (31%)	23 (5.1%)	52 (11.6%)	132 (29.4%)	22 (4.9%)
7 Feeling irritable	148	49.5%	19 (4.2%)	157 (35%)	56 (12.5%)	23 (501%)	142 (31.6%)	64 (14.3%)
8 Feeling annoyed	140	46.8%	24 (5.3%)	153 (34.1%)	24 (5.3%)	29 (6.5%)	148 (33%)	22 (4.9%)
9 Loss of concentration	133	44.2%	25 (5.5%)	129 (28.7%)	25 (5.6%)	32 (7.1%)	127 (28.3%)	19 (4.2%)
10 Lack of motivation	128	42.7%	16 (3.6%)	84 (18.7%)	15 (3.3%)	17 (3.8%)	88 (8.9%)	13 (2.9%)
11 Sleeping less than usual	106	35.2%	20 (4.5%)	110 (24.5%)	24 (5.3%)	19 (4.2%)	114 (25.4%)	18 (4%)
12 Feeling frustrated	86	28.7%	25 (5.6%)	154 (34.3%)	39 (8.7%)	31 (6.9%)	144 (32.1%)	42 (9.4%)
13 Sleeping more than usual	69	23.1%	11 (2.4%)	47 (10.5%)	9 (2%)	20 (4.5%)	41 (9.1%)	6 (1.3%)

presence of only two symptoms is deemed sufficient to denote the presence of the syndrome.

This syndrome may be more common than realized owing to the lack of awareness among Jordanian health-care professionals and people. Most diagnoses are made by the exclusion of physical causes and the condition is self-limiting because it tends to resolve after childbirth (Steel, 2017). In a study published in 1983, it was concluded that men's symptoms are a reflection of their level of attachment to the unborn child and involvement in the pregnancy (Weaver & Cranley, 1983). Men who have prepared for their parental role, for example by making antenatal visits, report a higher susceptibility to being afflicted by the syndrome (Kazmierczak et al., 2013). According to attachment theory, the man's closeness to the fetus gives rise to the syndrome (Cranley, 1981).

A particularly significant finding was that the expectant fathers also complained of *leg cramps* (55.8%), *increased appetite* (55.8%), *stomach distention* (49.2%), and *weight gain* (45.2%). All these reported signs are also very common and considered normal physiological changes in pregnancy (NICE Clinical Guidelines, 2008). These findings are consistent with those reported by Ganapathy (2014) who investigated the frequency of Couvade Syndrome symptoms among first-time expectant fathers in India. His results revealed that the most commonly reported physical symptoms are related to gastrointestinal disturbances such as changes in appetite, constipation, flatulence, indigestion, nausea, diarrhea, and abdominal pain (Ganapathy, 2014). Another notable result of our study was that *toothache* was one of the symptoms commonly experienced by the men during their wife's

Table 2. Experienced Heartburn in the Last 3 Months * What is Your Trimester?

Chi-Square Tests					
	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson χ^2	7.527 ^a	1	.006		
Continuity correction ^b	6.977	1	.008		
Likelihood ratio	7.556	1	.006		
Fisher's exact test				.008	.004
Linear-by-linear association	7.511	1	.006		
Number of valid cases	448				

Note. ^a0 cells (0.0%) have expected count less than 5. The minimum expected count is 68.57.

^bComputed only for a 2 × 2 table.

*The relationship between heartburn and the third trimester.

pregnancy (43%). Steel (2017) states that if a patient presents with unexplained toothache and has a pregnant partner, particularly if other unexplained symptoms are also present, perhaps the possibility of Couvade Syndrome should be considered. Many years ago, Trethowan (1968) identified that more toothache is recorded among expectant fathers compared to a matched control.

Our results also showed that Jordanian expectant fathers complained of *being unable to keep food down* (42%), *vomiting* (41.7%), *indigestion* (32%), and *poor appetite* (23.5%). In addition, it was very interesting to discover that a few of them reported *weight loss* (12.9%), which is very uncommon during pregnancy. Psychosocial theories propose that weight loss occurs due to the marginalization of fatherhood and as part of a transitional crisis to parenthood (Brennan et al., 2007). However, at this stage, we are unable to offer an explanation for this phenomenon as more investigations are still needed.

Couvade syndrome symptoms are most likely the result of men's desire to participate, to be more a part of the pregnancy, which will, after all, transform their life. While their wife is pregnant, they are preparing for their new role as a father. Overall, our findings could be explained by both the emotional contagion within couples and the general eagerness of Jordanian fathers to have children as soon as they get married. Although expectant fathers in Jordan cultures are expected to be actively involved in their wife's pregnancy, they receive little guidance on how to do so. In a previous study, Mrayan et al. (2016) reported that the major goal behind getting married in Jordan is to have children and create a family. Some decades ago, Weaver and Cranley (1983) found a positive association between paternal-fetal attachment and the incidence of physical symptoms resembling pregnancy in the expectant father.

In our study, the most significant reported symptoms were *feeling anxious* (67.4%) and *feeling low in mood*

(60%). These findings support those by Brennan (2010), who reported that most of the research participants were *anxious* during their wife's pregnancy and felt *low in mood*. Feeling *low in mood* is one of the major signs of antenatal depression in women. Many men also experience emotional changes during their wife's pregnancy. These symptoms may be linked to their worries about losing their partner's love and affection once the baby is born. This might suggest that the woman's antenatal depression signs affect the man's psychological status too. In a previous study, it was found that 57% of Jordanian women have symptoms of antenatal depression (Abujilban, Abuidhail, Al-Modallal, Hamaideh, & Mosemli, 2014). Another significant symptom reported by the men in our study was *mood swings* (58.8%), which is a simulation of what happens to pregnant women during their pregnancy. In a woman's life, pregnancy is a major transition point and during any transition a person's emotions can fluctuate. Many pregnant women complain of *mood swings* during their pregnancy (Mrayan et al., 2016) and this might affect their husbands too.

Our results also showed that the expectant fathers were *stressed* (58.5%) and *preoccupied* (58%) and complained of unexplained *early morning waking* (50.5%). The expectant fathers stated that they constantly *experience feeling irritable* (49.5%) and *annoyed* (46.8%) to an extremely several level. Kazmierczak et al. (2013) reported that the empathy of expectant fathers is the main reason that they have symptoms that mimic their wife's physical or psychological changes during pregnancy. Our findings confirm the findings of Brennan et al. (2007), who draw attention to the uncertainty and stress experienced by men who are preparing themselves for the role of becoming a father.

Our study identified that Jordanian expectant fathers experienced *loss of concentration* (44.2%) and *lack of motivation* (42.7%) for no specific reason. The least experienced signs, but which were still significant, were

sleeping less than usual (35.2%), *feeling frustrated* (28.7%), and for some *sleeping more than usual* (23.1%). It has been suggested that these symptoms mimic the pregnant woman's nocturnal restlessness as pregnancy progresses (Brennan et al., 2007; Ganapathy, 2014). Usually, couples share a bedroom and a bed, which also may explain men's vulnerability to sharing their wife's sleep disturbances during pregnancy.

And finally, our study found no association between Couvade Syndrome symptoms and the specific pregnancy trimester except for the *heartburn* which was experienced by 139 (69.0%) participants in the third trimester compared to 82 (31.0%) participants in the second trimester.

Conclusion

The transition to fatherhood is one of the most important phases in a man's life. Couvade Syndrome is a reactive response to the developmental crisis of pregnancy but it is not a psychological disorder (Ganapathy, 2014). Some studies have shed light on the distinct origins and inclinations of Couvade behaviors (Piechowski-Jozwiak & Bogousslavsky, 2018). Nowadays, there are different perspectives on the syndrome, including the medical, psychoanalytic, and psychological. Studies have identified that a male partner cohabitating with a pregnant female experiences symptoms that mimic his partner's pregnancy symptoms. These symptoms in men could be explained as part of their participation in pregnancy and in the postpartum period.

Raising awareness may be helpful in enhancing the clinical detection of Couvade Syndrome, which may be helpful in improving antenatal care and management for both mothers and fathers (Piechowski-Jozwiak & Bogousslavsky, 2018). It is crucial to embed knowledge of this syndrome in modern society in order to better understand the complexity of male involvement in pregnancy and fatherhood, and to increase awareness that the symptoms may not be indicative of a disease. The awareness of impending fatherhood might lead men to experience various reactions, including Couvade Syndrome (Kazmierczak et al., 2013). It should be acknowledged that expectant fathers genuinely struggle with the need to balance their own transition to fatherhood and that of their partner to motherhood. Their status and feelings are sometimes overlooked and they may feel conflicted about their new role and, consequently, they may need access to support and advice. Maternity health-care providers can offer valuable support and encouragement to expectant fathers, which would help them to acclimatize to their new role and responsibilities and adjust to fatherhood.

Implications for Practice

It is crucial for the health-care providers to understand that the Couvade Syndrome is not recognized as a mental illness or any type of a disease, and men who are experiencing its signs and symptoms are not ill. Generally, antenatal care is concentrated on mothers, yet fathers need to be involved in the care too. Our study found that Couvade Syndrome is fairly prevalent among expectant fathers in Jordan. In view of the findings, men's health needs to be accorded a greater profile within the realms of antenatal care as their health can affect the pregnancy outcome. This seems a little more understandable if one takes it into consideration that the transition to fatherhood can be just as dramatic as the transition to motherhood. It is essential that health-care providers introduce and explain Couvade Syndrome and its symptoms to expectant fathers. Health-care providers must explain that it is normal for the expectant fathers to experience some discomforts during their wife's pregnancy and it is not considered an illness. Expectant fathers need to know that this syndrome is not a rare or unusual occurrence. In addition, health-care providers need to start monitoring the health status of expectant fathers, and armed with a better understanding of the variety of responses normally experienced by expectant fathers during their wife's pregnancy, health-care providers will be better able to provide them with the necessary support and education to help them through this transitional period.

Recommendations

This study sheds light on Couvade Syndrome among a group of Jordanian expectant fathers and based on the results, makes the following recommendations:

- It is recommended that future investigators use qualitative approaches to further illuminate the syndrome's characteristics, definition, and perceptions as seen by male partners.
- A quantitative studies of large samples to investigate the type, incidence, severity, and distress of symptoms of the syndrome and its relationship with socio-demographic factors.
- Health organizations are recommended to involve expectant fathers in the antenatal counseling to explain pregnancy-related discomforts, the Couvade Syndrome symptoms, and planned interventions.

Limitations

This study was subject to some limitations. First, because of the time limit, this research was conducted only on a

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