

Behaviors and Attitudes towards Dysmenorrhea; a Cross-sectional Survey of 2,000 Jordanian University Students**

Tareq L. Mukattash, *¹Linda Tahaine, ¹Naseer AlRawi, ¹Anan Jarab, ²Hanna Hammad, ³Khawla Nuseir ¹

Abstract

Background and Aims: Dysmenorrhea is a very common gynecologic condition encountered by women. The majority of women suffering from dysmenorrhea self-medicate with over the counter medications, which might be inadequate or not very effective. The present study aims to determine the prevalence of dysmenorrhea, the factors significantly associated with the prevalence of dysmenorrhea, the attitudes and behaviors towards dysmenorrhea among Jordanian female students, and the pharmacist's role in the management of dysmenorrhea.

Materials and Methods: A total of 2,000 female university students in seven public universities were randomly approached and anonymously surveyed by our research team using a validated structured questionnaire technique. Responses were coded and entered into a customized database in SPSS, version 17, for statistical analysis.

Results: Two thousand female university students took part in this survey. The prevalence of dysmenorrhea among the study group was 90.1% (50.5% had pain during each menstruation while 39.6% had pain during some menstruations). Participants were statistically more likely to have dysmenorrhea if they were underweight, having a low family income, living in a rural area, and reporting to have a family history of dysmenorrhea. The majority of respondents thought that the pharmacist had a major role in the treatment of dysmenorrhea.

Conclusion: This study has reported a high prevalence of dysmenorrhea among female university students in Jordan. There are growing opportunities for pharmacists to act in the treatment and management of dysmenorrhea.

Keywords: Dysmenorrhea, prevalence, risk factors, pharmacist, Jordan.

(J Med J 2013; Vol. 47 (1):26- 34)

Received

October 19, 2011

Accepted

May 10, 2012

1. Department of Clinical Pharmacy, Faculty of Pharmacy, Jordan University of Science and Technology. Irbid, Jordan.
2. Department of Pharmacy, Faculty of Pharmacy, Al Zaytoonah University of Jordan, Amman, Jordan.
3. Department of Biology, Faculty of Science, University of Jordan, Amman, Jordan.

* Correspondence should be addressed to:

Tareq Lewis Mukattash, BSc, PhD
P. O. Box: 3030, Irbid 22110, Jordan.
E-mail: tlmukattash@just.edu.jo

** Acknowledgements: The authors would like to acknowledge all respondents who took part in this study and would also like to extend their gratitude to Ms. Noor Bazzi and Ms. Haneen Bisharat who collected the data for the present study.

Introduction

Dysmenorrhea, a very common gynecologic condition encountered by women, is defined as crampy pelvic pain occurring just before or with menses. Primary dysmenorrhea is painful menstruation even with normal pelvic anatomy and physiology.¹ Secondary dysmenorrhea, on the other hand, is linked to underlying pelvic pathology.² The prevalence of dysmenorrhea is highest amongst adolescent women, and depending on the measurement method, the numbers range between 20 and 90 percent, and of these about 15 percent report severe dysmenorrhea.³ Even though dysmenorrhea is a common gynecological problem, it is not the most serious, thus seeking medical treatment is not very customary and many women self-medicate with over-the-counter medications, which might be inadequate or not very effective. Furthermore, dysmenorrhea is responsible for repeated absenteeism from school in adolescent girls, and hence a negative impact on performance.⁴⁻⁶

Internationally, several studies investigated the prevalence and the impact of dysmenorrhea on females. In Turkey, a cross-sectional study was conducted to evaluate the prevalence of dysmenorrhea and its effects on the quality of life.⁴

Another study was conducted by Banikarim C et al. investigating the prevalence and the impact of dysmenorrhea on Hispanic female adolescents living in the United States of America.⁵ Also, in Thailand, a study was conducted to determine the prevalence of dysmenorrhea and knowledge of treatment.⁶

In Jordan and according to a study conducted on female university students, 87.45% (111 students) reported having dysmenorrhea symptoms. The most common dysmenorrhea symptom was abdominal bloating and it was reported in 78.7% of the participants; other symptoms included loose stool (40.2%) and dizziness (35.4%). Sixty five percent of the study group reported using medications to manage the dysmenorrhea symptoms; Non-steroidal anti-

inflammatory drugs (NSAIDs) were the most commonly used agents (37.1%) followed by paracetamol (29.9%). The results also showed an association between dairy products intake and dysmenorrhea; females with increased dairy products intake reported less dysmenorrhea symptoms compared to females with low intake.⁷

The aim of the current study is to find out the prevalence of dysmenorrhea among Jordanian university students, risk factors related to dysmenorrhea, attitudes and knowledge toward dysmenorrhea, the measures undertaken by these women to ameliorate the pain and other symptoms and the pharmacist's role in dysmenorrhea management.

Methods

A draft survey instrument was prepared to collect the required information. The draft questionnaire was examined for fitness of purpose and face validity in a focus group involving different university students. Following this review, the final version of the questionnaire was piloted in a sample of 50 female university students prior to moving on to the main survey. Throughout the research, the questionnaire was administered to female university students using a structured interview technique (face to face) by two trained interviewers (NB and HB). The target sample size was 2,000.

The survey, which was designed after an extensive literature review, consisted of questions about the family (demographic), i.e. socioeconomic status, educational level and number of siblings. The survey also contained questions about dysmenorrhea, without the explicit use of the word dysmenorrhea.

A numerical scale evaluation was used for students who said that they had painful menstruation. In the concerned scale, the students were asked to rate the severity of their pain on a numeric scale that ranges from 1 to 10.

All interviews were conducted in Jordanian universities (seven public universities within six main cities in total) between August and November 2010 (at least two visits were made to each location). Interviews were carried out on working days of the week.

Female university students were approached by the interviewer and invited to participate. Each interview required approximately 10 min to complete. The researcher then explained the nature of the study to participants. Participants were then asked a further series of questions, having been given this information.

Following data collection, responses were coded and entered into a customised database (SPSS, version 17) for statistical analyses. Basic frequencies, single-predictor and multiple predictor general linear models were used to analyse the data. A priori, the significance level was set at 0.05.

The study received ethical approval from the Institutional Review Board (IRB), King Abdulla University Hospital, Jordan University of Science and Technology.

The research is registered at the Deanship of Scientific Research under the following reference: 20100136. This includes the ethical approval and the research fund. The ethical approval was granted on September 2010. The present research was funded by the Deanship of Scientific Research at the Jordan University of Science and Technology.

Results

The mean age of the women in the study group was 20.86 years (range, 15–35 years) and the mean age at menarche was 13.5 years (range, 10–23 years) with 71.6% of the respondents having a regular menstruation pattern. The prevalence of dysmenorrhea among the study group was 90.1% (1,802/2,000) where 50.5% had pain during each menstruation while 39.6% had pain during some menstruations. Respondent’s characteristics and demographics and their effect on the prevalence of dysmenorrhea are displayed in table (1).

Table (1): Respondents characteristics and demographics.

<u>Characteristics</u>	<u>Percentage</u>
Age, years:	
<=18	14.1%
19-25	82.9%
>=26	3%
BMI (body mass index):	
<18.5 (underweight)	13.1%
18.5-24.9 (normal)	24.9%
25-29.9 (overweight)	13.5%
>30 (obese)	3.6%
Social status:	
Married	4.9%
Single	94.9%
Divorced	2%
Has children:	
Yes	2.6%
No	97.4%
Family total income/month by Jordan’s economic conditions, US \$:	
Low (< 400)	21.75%
Middle (400 – 1200)	55.85%
High (>1200)	23.4%

Health status evaluation:	
Very good	63.7%
Good	32.0%
Accepted (fair)	3.3%
Weak	1.0%
Place of living:	
City	61%
Rural	39%
Number of siblings:	
No siblings	1.2%
1-3	26%
4-5	38%
>=6	34.8%
Smoking:	
Yes	6.8%
No	93.2%
Practicing sports:	
Yes	49%
No	51%
Drinking Alcohol	
Yes	2.5%
No	97.5%
Have a chronic disease	
Yes	3.4%
No	96.6%
Age of menarche, years:	
<12	22.9%
13 – 14	50.3%
>15	26.8%
Frequency of menstrual cycle, length day:	
< 25	25.5%
26 – 32	66.1%
> 33	8.4%
Duration of menstrual flow, day:	
<6	72.0%
>6	28.0%

The majority of respondents (65.2%) reported experiencing dysmenorrhea since their first menstruation, 11.0% had been suffering from dysmenorrhea for the last couple of months and 23.8% for the last couple of years. With regards to the duration of dysmenorrhea, the majority of respondents (40.4%) reported that the pain lasted for about two days (mean = 2.98 days).

The mean intensity of pain among the students was 6.11 on a 10-point pain scale. Dysmenorrhea related problems, as reported by respondents were as follows: mood disturbance (80.1%), fatigue (85.5%), fluid retention (53.1%), laziness (64.1%) and anorexia (43.5%).

Respondents suffering from dysmenorrhea reported the use of different medications to cure their pain. This was mostly reported by respondents who reported higher pain levels. Table 2 summarizes different medications used to treat dysmenorrhea.

Table (2): The prevalence of medications used to treat dysmenorrhea.

<u>Medication (active ingredient/s)</u>	<u>Percentage</u>
<i>Ibuprofen</i>	42.0%
<i>Paracetamol</i>	34.0%
<i>Prifinium bromide</i>	5.0%
<i>Diclofenac salts</i>	10.0%
<i>Naproxen</i>	2.0%
<i>Mefenamic acid</i>	2.3%
<i>Miloxicam</i>	0.3%
<i>Hyoscine butylbromide</i>	3.1%
<i>Metoclopramide</i>	0.5%
<i>Tramadol</i>	0.2%
<i>(Homatropine methyl bromide + paracetamol + papaverine+ allobarbital) (Allospasmin®)</i>	0.4%
<i>(Paracetamol + propyphenazone + caffeine) (Saridon®)</i>	0.2%

Some respondents (16%) reported consulting a doctor to help treat dysmenorrhea. This was more common in respondents who suffered from dysmenorrhea on a regular basis ($P < 0.005$). Respondents reported being asked to do laboratory tests (55%), ultrasound diagnosis (19%) and clinical diagnostic tests (26%). Respondents who reported consulting a doctor were mostly diagnosed with no specific cause of dysmenorrhea (64.5%). Different diagnoses were as follows: stress related dysmenorrhea (22.8%), vaginal stenosis (6.0%), vaginal blockage (3.6%) and uterine fibroids (3.1%).

The prevalence of dysmenorrhea varied among participants with different characteristics. Factors that could be related to dysmenorrhea were included in the single-predictor analysis. In the single-predictor analysis, factors significantly ($p < 0.05$) related to the prevalence of dysmenorrhea were smoking, being underweight, having a low family income, living in a rural area, thinking she had weak health, having more than three siblings, not practicing sports at all, reporting to have a family history of dysmenorrhea ($P < 0.001$), and being older than 15 years at menarche. The findings are presented in table (3).

Table (3): Factors associated with dysmenorrhea: single-predictor analysis.

<u>Variables</u>	<u>B</u>	<u>P value</u>	<u>Odds Ratio (OR)</u>	<u>95% CI for OR</u>
<i>BMI (body mass index):</i> <i><18.5 (underweight)</i>	2.001	.004	0.267	0.23 – 1.75
<i>Total family income/month by Jordan's</i> <i>economic conditions, US \$: Low (< 400)</i>	2.232	.027	0.092	0.07 – 2.01
<i>Health status evaluation: weak</i>	0.111	.041	0.333	0.32 – 1.88
<i>Place of living: Rural</i>	2.107	.011	0.121	0.15 – 2.90
<i>Number of siblings:</i> <i>No siblings >3</i>	1.832	.004	0.371	0.39 – 1.77
<i>Smoking:</i> <i>Yes</i>	2.221	.025	0.131	0.24 – 3.02
<i>Practicing sports:</i> <i>No</i>	0.120	.031	0.512	0.91 – 1.82
<i>Family history of dysmenorrhea</i> <i>Yes</i>	2.107	.012	0.251	0.55 – 2.79
<i>Age of menarche, years:</i> <i>>15</i>	1.921	.006	0.397	1.02 – 2.33

Factors significantly ($p < 0.05$) related to the prevalence of dysmenorrhea were subjected to

According to the odds ratio values, respondents were found approximately eight times more likely

multiple-predictor analysis. The findings are presented in table 4. The multiple-predictor analysis revealed that participants were statistically more likely to have dysmenorrhea if they were underweight, having a low family income, living in a rural area, and reporting to have a family history of dysmenorrhea.

According to the latter model, the odds of a respondent being more likely to have dysmenorrhea by self-report was positively related to lower BMI ($P < 0.01$), low family income, living in a rural area and having positive family history of dysmenorrhea ($P < 0.05$).

to have dysmenorrhea if they reported to have low family income (OR = 0.127, CI = 0.04-2.11) and approximately five times more likely to have dysmenorrhea if they had a family history of dysmenorrhea (OR = 0.211, CI = 0.05-3.40). Furthermore, respondents were found approximately three times more likely to report dysmenorrhea for each unit decrease in BMI (OR = 0.385, CI = 0.19-1.55) and twice more likely to report dysmenorrhea if they were living in a rural area (OR = 0.472, CI = 0.28-1.79).

Table (4): Factors associated with dysmenorrhea: multiple-predictor analysis.

<i>Variables</i>	<i>B</i>	<i>P value</i>	<i>Odds Ratio (OR)</i>	<i>95% CI for OR</i>
<i>BMI < 18.5 (underweight)</i>	1.841	0.003**	0.385	0.19 - 1.55
<i>Total family income (low)</i>	2.216	0.029*	0.127	0.04 - 2.11
<i>Place of living (rural area)</i>	0.072	0.043*	0.472	0.28 - 1.79
<i>Family history (yes)</i>	2.017	0.016*	0.211	0.05 - 3.40

*Significant at 0.05 level, ** Significant at 0.01 level.

When asked about the role of the pharmacist in treating dysmenorrhea, 75.2% of respondents thought the pharmacists had a major role in the treatment and management of dysmenorrhea. Almost one third (36.6%) of respondents reported consulting a pharmacist to ask about dysmenorrhea, its related complications, and treatment. The latter respondents were mostly those who thought that pharmacists actually have a role in the treatment of dysmenorrhea ($P < 0.005$). It was also reported that the majority of respondents who sought pharmacist's advice (89.5%) have actually received the needed advice and that the pharmacists were helpful.

Discussion

This study found a high prevalence (90.1%) of dysmenorrhea among university students in Jordan. This percentage is on the upper limit of reported dysmenorrhea prevalence reported by similar studies.^{1,3,4,5,7,11} This might be due to differences in the measurement methods used in each study, as well as the age of the women (average 20 years) targeted in this study; and nutritional habits of the women, especially that this study showed that women who had a

prevalence of dysmenorrhea is higher in younger women like the ones surveyed in this study.⁸ It is worth noting that a study published recently from Jordan showed a prevalence of 87.4%⁷ even though this study depended on a convenient sample and was carried out to investigate the possible association between daily dairy product intake and dysmenorrhea. Nevertheless, their results are in accordance with our results despite differences in sample size and population from which participants were withdrawn; one university in their study versus seven in ours.

Dysmenorrhea was higher in women with low BMI which is in agreement with other studies that reported higher prevalence in underweight women.⁹ An example is a study conducted in Thailand to determine the prevalence of dysmenorrhea and knowledge of treatment which found a significant association with body mass index ($p < 0.05$).⁶ Alternatively, some studies did not find any relation between body weight or BMI and dysmenorrhea prevalence.¹⁰ This association between low body weight and dysmenorrhea might be related to overall health investigation of the impact of dysmenorrhea on Hispanic female adolescents by Banikarim et al.

perception of bad health also had a higher prevalence of dysmenorrhea in comparison to those who answered good or very good to the question about their overall health status. The same case applies to the relevance of the lack of sport practice by those who suffered dysmenorrhea as compared to those who did not. We can sum up all these as a healthy lifestyle and a low relevance of dysmenorrhea.

Dysmenorrhea is inversely related to family income with a higher prevalence in women who came from low income families. The published literature varies in relating dysmenorrhea to the socioeconomic status of individuals. The latter findings were consistent with findings with previously published studies,¹¹ and contrasts with other studies that showed opposite results in this regard.⁹ Family income may also be related to overall nutritional and health lifestyle that have an impact on the dietary intake of these women. The same argument applies for the relation between dysmenorrhea and the number of sibling; the more siblings, the less emotional and material resources allocated for each member of the family, hence the higher the prevalence of dysmenorrhea.

Living in a rural area was also associated with a higher prevalence of dysmenorrhea; this might reflect the fact that in general, Jordanian families living in rural areas have low income. A family history of dysmenorrhea also had an effect on the participant's incidence of dysmenorrhea; those whose mothers suffered from dysmenorrhea were more likely to suffer too. This suggests a genetic factor as a probable cause of dysmenorrhea.

In the present study, about a third of the respondents described their dysmenorrhea pain as severe (7 to 10 on the numerical scale), which is in accordance with other studies reporting a prevalence of severe pain between 10% and 27%. The importance of this percentage is reflected in the negative impact that this has on the quality of life and school absences and thus success and social activities as well as psychological status. As has been shown by other studies, the

in a rural area, and reporting to have a family

found that 38% of the students missed school days and 36% missed test taking activities,⁵ while the findings for the group in Thailand included several activities which were affected by dysmenorrhea such as low class concentration (63.6%), limited sport activities (37.3%), and school absenteeism (21.1%).⁶

A major finding concerning the role of the pharmacist is that 75% of the respondents thought that the pharmacist has a major role. In addition to that, 36% consulted a pharmacist regarding dysmenorrhea, and of these, close to 90% found the pharmacist's advice helpful.

More than one third (36.6%) of the respondents reported consulting a pharmacist to ask about dysmenorrhea, its related complications, and treatment. This is not surprising with the current development of the pharmacist's role which is to cover for self-treatment and self-medications.¹² Pharmacists have favorable views of patient counseling and are accessible when compared to other healthcare professionals.¹³ Research has found that pharmacists compared to other healthcare professionals may have an important role in treating minor ailments and in counseling patients regarding a variety of health problems.¹⁴ Furthermore, this important role of the pharmacist extends to treat issues related to women's health.¹⁵⁻¹⁷ The pharmacist was found to have a significant role in giving important health advice that many people find helpful and sufficient in treating different issues.¹⁸ The latter is also obvious in the present study, as the majority of respondents who sought pharmacist's advice (89.5%) have reported receiving the needed advice and that the pharmacist was found to be helpful.

Conclusion

In conclusion, an overwhelming prevalence of dysmenorrhea was found among the study population. Participants were statistically more likely to have dysmenorrhea if they were underweight, having a low family income, living

8. Sundell G, Milsom I, Andersch B. Factors

history of dysmenorrhea. Professional consultations regarding the treatment of dysmenorrhea are not often sought. There are growing opportunities indeed for pharmacists to act dynamically in the treatment and management of dysmenorrhea. Further research and exploration of this issue in developing countries would be an integral part in any future healthcare initiative regarding dysmenorrhea.

Disclosure of Interests: None declared.

References

1. Hillen TI, Grbavac SL, Johnston PJ, Straton JA, Keogh JM. Primary dysmenorrhea in young Western Australian women: prevalence, impact, and knowledge of treatment. *J Adolesc Health* 1999 Jul; 25(1): 40-45.
2. Stoelting-Gettelfinger W. A case study and comprehensive differential diagnosis and care plan for the three Ds of women's health: primary dysmenorrhea, secondary dysmenorrhea, and dyspareunia. *J Am Acad Nurse Pract* 2010 Oct; 22(10): 513-522.
3. Eryilmaz G, Ozdemir F, Pasinlioglu T. Dysmenorrhea prevalence among adolescents in eastern Turkey: its effects on school performance and relationships with family and friends. *J Pediatr Adolesc Gynecol* 2010 Oct; 23(5): 267-272.
4. Unsal A, Ayranci U, Tozun M, Arslan G, Calik E. Prevalence of dysmenorrhea and its effect on quality of life among a group of female university students. *Ups J Med Sci* 2010 May; 115(2): 138-145.
5. Banikarim C, Chacko MR, Kelder SH. Prevalence and impact of dysmenorrhea on Hispanic female adolescents. *Arch Pediatr Adolesc Med* 2000 Dec; 154(12): 1226-1229.
6. Tangchai K, Titapant V, Boriboonhirunsarn D. Dysmenorrhea in Thai adolescents: prevalence, impact and knowledge of treatment. *J Med Assoc Thai* 2004 Oct; 87 Suppl 3: S69-73.
7. Abdul-Razzak KK, Ayoub NM, Abu-Taleb AA, Obeidat BA. Influence of dietary intake of dairy products on dysmenorrhea. *J Obstet Gynaecol Res* 2010 Apr; 36(2): 377-383.
8. influencing the prevalence and severity of dysmenorrhea in young women. *Br J Obstet Gynaecol* 1990 Jul; 97(7): 588-594.
9. Ozerdogan N, Sayiner D, Ayranci U, Unsal A, Giray S. Prevalence and predictors of dysmenorrhea among students at a university in Turkey. *Int J Gynaecol Obstet* 2009 Oct; 107(1): 39-43.
10. Andersch B, Milsom I. An epidemiologic study of young women with dysmenorrhea. *Am J Obstet Gynecol* 1982 Nov 15; 144(6): 655-660.
11. Jamieson DJ, Steege JF. The prevalence of dysmenorrhea, dyspareunia, pelvic pain, and irritable bowel syndrome in primary care practices. *Obstet Gynecol* 1996 Jan; 87(1): 55-58.
12. World Health Organization. The role of the pharmacist in self-care and self-medication. 1998; Available at: <http://www.opas.org.br/medicamentos/site/Upload/Arq/who-dap-98-13.pdf>. Accessed May/9, 2011.
13. Montgomery AT, Kalvemark Sporrang S, Manap N, Tully MP, Lindblad AK. Receiving a pharmaceutical care service compared to receiving standard pharmacy service in Sweden--How do patients differ with regard to perceptions of medicine use and the pharmacy encounter? *Res Social Adm Pharm* 2010 Sep; 6(3): 185-195.
14. Pilnick A. Pharmacy counseling: A study of the pharmacist/patient encounter using conversation analysis. Nottingham: University of Nottingham; 1997.
15. Vanham D, Spinewine A. Evaluation of the quality of counseling provided by community pharmacists to pregnant women. *J Pharm Belg* 2010 Sep; (3): 68-74.
16. El Hajj MS, Hamid Y. Breast cancer health promotion in Qatar: a survey of community pharmacists' interests and needs. *Pharm World Sci* 2010 Nov 17.
17. Australian Self-Medication Industry (ASMI). Pharmacists an under-utilised resource in the treatment of minor ailments. 2010; Available at: <http://www.self-care.net.au/?p=41>. Accessed May/9, 2011.
18. Chewning B, Schommer JC. Increasing clients' knowledge of community pharmacists' roles. *Pharm Res* 1996 Sep; 13(9): 1299-1304.

السلوكيات والمواقف تجاه عسر الطمث: دراسة جزئية على (2000) طالبة في الجامعات الأردنية

طارق مقطش، ليندا طحايه، نصير الراوي، عنان جراب، حنا حماد، خولة نصير

الملخص

إن عسر الطمث هي حالة شائعة جداً للجهاز التناسلي للمرأة. غالبية النساء اللواتي يعانين من عسر الطمث يلجأن إلى العلاج الذاتي أو أحد الأدوية المضادة التي يمكن أن تكون غير كافية أو فعالة. هذه الدراسة تهدف إلى تحديد مدى انتشار عسر الطمث، حيث إن عوامل انتشار عسر الطمث ترتبط على نحو كبير بالسلوكيات اتجاه عسر الطمث بين الطالبات الأردنيات والتحقيق في دور الصيدلاني في معالجة عسر الطمث.

المواد والطرق: تم استخدام تقنية الاستبانة على (2000) طالبة جامعية في سبع جامعات حكومية، وتم ترميز الردود وإدخالها في قاعدة البيانات المخصصة للتحليل الإحصائي SPSS.

النتائج: شملت الدراسة (2000) طالبة جامعية. مدى انتشار عسر الطمث كانت 90.1% (50.5% يعانين الألم أثناء الحيض و39.6% يعانين من الألم في بعض المرات أثناء الحيض).

إن اللواتي يعانين من عسر الطمث هن غالباً نحيفات أو لديهن دخل عائلي محدود أو يعشن في مناطق ريفية أو لديهن تاريخ عائلي مرضي مع عسر الطمث. الغالبية يعتقدن بأن الصيدلي له دور كبير في معالجة عسر الطمث.

الخلاصة: أفادت هذه الدراسة وجود نسبة انتشار كبيرة لعسر الطمث بين الطالبات الجامعيات في الأردن، وهناك فرصة متزايدة للصيدلة لمعالجة عسر الطمث.

الكلمات الدالة: عسر الطمث، انتشار، عوامل الخطر، الصيدلي، الأردن.