Shiraz E-Medical Journal
Volume 22 · Issue 9 · e108890

OPEN PEER REVIEW

The Association Between Severity of Dysmenorrhea and Social Support among Female Students of Ilam University of Medical Sciences

Mahsa Mashreghi, Zainab Suhrabi, Parand Soliemanifard, Sedigheh Farzi, Safoura Taheri

SUBMITTED	REVISED	ACCEPTED	DOI
26 Aug 2020	23 Feb 2021	1 Mar 2021	10.5812/semj.108890

About this report

This open peer review (OPR) report shows the public comments made on this article during peer review, by the reviewers, the associate editor and the editor-in-chief, for every revision round, together with the authors' replies. Comments appear only with the consent of the people who wrote them. Reviewers who chose to sign their report are named; the others are shown as "Referee". Comments are edited for language only, and confidential remarks to the editors are not included.

More about open peer review: brieflands.com/knowledgebase/opr

Contents

1 **Original submission** Associate Editor 2
2 **Revision 1** Associate Editor 3
Authors' reply to reviewers 4
Reviewer and editor comments 13
3 **Revision 2** Associate Editor 14
Authors' reply to reviewers 15
Reviewer and editor comments 17
4 **Revision 3** Associate Editor 18
Authors' reply to reviewers 19
Reviewer and editor comments 20

1 Original submission

1 comment · 22 Sep 2020

Associate Editor

MAJOR REVISION 22 Sep 2020

Dear Professor Lankarani,
Thank you for inviting me to serve as Section Editor for the manuscript entitled "The relationship between severity of dysmenorrhea and social support among female students of Ilam University of Medical Sciences". According to the reviewers' opinion, this manuscript needs English editing. Moreover, there are some vague points regarding sampling and reporting the data. Also, the references should be updated as some of them are old.
Kindest regards
SE

2

Revision 1

AUTHORS' RESPONSE TO REVIEWERS

Authors' reply to reviewers

The next pages contain the authors' point-by-point reply to the comments of this revision round, as submitted with the revised manuscript. It is published as the authors wrote it.

Dear Safoura Taheri,

Thank you for submitting your valuable manuscript to our journal. We would like to inform you that the peer review process of your manuscript is complete and requires "**Major Revision**". Although it has several useful points, it needs **Major Revision** to be reviewed again. Below you can find the abstracts of the peer review decision made by our editorial board members.

Reviewers' Comments:

Reviewer 1:

1. Chi-square correlation coefficient is not true. *Was corrected.* Descriptive statistics (frequency and mean) and analytical statistics (Pearson's correlation coefficient) were used for data analysis, which was done by SPSS-16 software.

2. There was no information about sample size calculation. *Was corrected.* The sample size of 270 individuals was determined for this study by consulting a statistical specialist and using sample size formula. In order to eliminate the possibility of error and possible sample drop, 300 people were considered, but at the end, the data of 286 participants were analyzed.

$$N = \frac{\left(Z_{1-\frac{\propto}{2}} + Z_{1-\beta}\right)^2 \ (P_1 q_1 + P_2 q_2)}{(P_1 - P_2)^2}$$

3. What do you mean by "tetrachoric correlation"? *Was corrected.* Tetrachoric correlation is a special case of analysis of the statistical covariation between two variables measured on a dichotomous scale, but assuming an underlying bivariate normal distribution. Homman et al (2008) in a study examined the SSQ's validity by using Cronbach's coefficient (0.81), and showed that data obtained from this questionnaire can be trusted. Also, the existence of a positive correlation between the items of this questionnaire obtained by tetrachoric correlation coefficient, which was done by Dr. Hooman, indicates the convergent validity of this questionnaire (17).

4. How about number of dimensions, questions and scoring of the social support questionnaire?

The social support questionnaire consists of 25 items in 4 dimensions, which include friendly support (7 items), family (7 items), social (6 items) and general support (5 items). The scoring

system of this scale ranges from zero (0) and one (1), which means that, except for items 7, 15, 16, 17, 18, 20, 21, 24 that are scored in reverse, so that wrong answer gets a score of one and correct answer gets a score of zero, in other items, the wrong answer gets a score of zero and the correct answer gets a score of one.

5. 4 to 6 individuals (58.7%)?? *Was corrected. It was deleted*

6. How about cut points of social support? *Was corrected*

In general, the total scores of social support questionnaire are interpreted as low, moderate and high. Thus, the total score of this questionnaire (100) is divided into three categories of lower social support (score of less than or equal to 33.3), moderate social support (score of between 33.3 and 66.6) and high social support (score of more than 66.6).

7. 82% of the subjects were suffering from varying degrees of menstrual pain and 14% did not feel pain during menstruation. How about the other 4%? *Was corrected.*

The prevalence of primary dysmenorrhea was 86% among the subjects. Findings also showed that 86% of the subjects were suffering from varying degrees of menstrual pain. The highest frequency (30.4%) was related to moderate menstrual pain and then, the severe pain 24.5% and mild pain 19.6%.

8. Report all the demographic variables in a Table. *Was corrected*

The mean age of the samples was 21.62 ±2.10 years and the mean age of menarche was 13.57 ±1.33 years. Majority of the subjects (94.7%) were under 25 years of age. More than half of them (55.2%) reported a family income of between one and two million Tomans, the equivalent of $150-200. Seventy eighth percent were consuming 2 cups or less of coffee per day, 64% were consuming 3 cups or less of tea per day, and 74.5% were consuming less than 100 grams of chocolate per day, which is an acceptable amount of daily caffeine intake. More than two-thirds of subjects (69.9%) were rarely exercising during the day (table 1).

Table 1. Frequency distribution of demographic variables in the studied samples

Variable	**category**	**N(%)**	**Mean (±SD)**
Age (years)	20 years and less	100(35)	21.62(±2.106)
	21-25	169(59.1)	

	26-30	17(5.9)	
Family income status(tomans)	Less than one million tomans	51(17.9)	
	Between one and two million tomans	178(55.2)	
	More than two million tomans	77(26.9)	
The age of menarche(years)	10	1(0.4)	13.57 (±1.33)
	11	13(4.6)	
	12	50(17.4)	
	13	87(30.4)	
	14	71(24.8)	
	15	39(13.6)	
	16 years and more	25(8.8)	
Daily tea consumption(glasses)	3 glasses or less	223(78)	
	4 glasses or less	61(21.3)	
	I do not consume	2(0.7)	
Daily consumption of coffee(cups)	2 cups or less	183(64)	
	3 cups or less	6(2.1)	
	I do not consume	97(33.9)	
Daily consumption of chocolate(grams)	Less than 100 grams	213(74.5)	
	More than 100 grams	35(12.2)	
	I do not consume	38(13.3)	
Do exercise during the day	Seldom	200(69.9)	
	Sometimes	74(25.9)	
	Always	12(4.2)	
Tatal		286(100)	

9. Using correlation in Table 2 is not true. Was corrected. Table was deleted and write:

There was a significant relationship between social support and severity of dysmenorrhea, so that

Pearson's correlation coefficient showed an inverse relationship between the two variables (r = -0.187, P = 0.002). the correlation was weak and negative (inverse), meaning that, with increase in social support, the severity of dysmenorrhea decreases.

Reviewer 2:

Medical writing, word spacing, english grammar and writing style should be edited and revised.

In method of abstract, do not mentioned any questionnaires that you used in your study. . ***Was corrected****.* ***Manuscript was edited by native.***

Data collection tools included demographic information form, Visual Analogue Scale (VAS) to determine pain severity, and standardized Social Support Questionnaire (SSQ) to assess social support.

1- You said '''''' The sample size of 270 individuals was determined for this study by consulting a statistical specialist and using sample size formula.''' But your sample is 286 individual . how did you determined ??? . ***Was corrected****.* The sample size of 270 individuals was determined for this study by consulting a statistical specialist and using sample size formula. In order to eliminate the possibility of error and possible sample drop, 300 people were considered, but at the end, the data of 286 participants were analyzed.

$$N = \frac{\left(Z_{1-\frac{\alpha}{2}} + Z_{1-\beta}\right)^2 \ (P_1 q_1 + P_2 q_2)}{(P_1 - P_2)^2}$$

2- In Ethical considerations: don't have the informed consent form??? just explain to student? . ***Was corrected****.* A written consent was obtained from the participants before entering the study. All participants were reminded that their participation was voluntary and they had the right to withdraw from the research at any stage. All personal data such as names were anonymized. Paper based data (consent) was stored securely in a locked cupboard and electronic data was stored in a secure server through password protected documents.

3- In refrence : most of refrences are old. Was corrected.

1.Berek j.Novak F. Berek & Novak,s gynecology.15 th ed.Tehran:Golban; 2012.P.459 -462.

2. Shafaie FS, Homaei HM, Zoodfekr L. Comparison the frequency of menstrual disorders (amenorrhea, oligomenorrhea, dysmenorrhea and premenstrual syndrome) between athletes and non-athlete's female students of Tabriz universities, Tabriz, Iran. Iran J Obstet Gynecol Infertil. 2013; 16(51):14-21.

3. Zangane M, Veisi F, Nankali A, Rezaei M, Ataee M. Evaluation of the effects of oral vitamin-d for pelvic pain reduction in primary dysmenorrhea. Iran J Obstet Gynecol Infertil. 2014; 16(88):14-20.

4. Mohammadinia N, Rezaei M, Salehian T, Dashipor AR. Comparing the effect of Anethum gravolens with mefenamic acid consumption on treatment of primary dysmenorrheal. J Sharekord Univ Med Sci. 2013; 15(5):57-64.

5. Delaram M, Forozande N. The effect of Fennel on the primary dysmenorrhea in students of Shahrekord University of Medical Sciences. Jundishapur Sci Med J .2010; 10(1):81-8. http://eprints.skums.ac.ir/id/eprint/6471

6. Haidari F, Akrami A, Sarhadi M, Mohammad-Shahi M. Prevalence and severity of primary dysmenorrhea and its relation to anthropometric parameters. Hayat. 2011;17(1):70-7. http://hayat.tums.ac.ir/article-1-73-en.html

7. Wong LP. khoo EM. Menstrual- related attitudes and symptoms among multi- racial asian adolescent Females. Int J Behav Med. 2011 sep; 18(3): 246- 53.

8. Moradi M, Sheikholeslami R, Ahmadzadeh M, Cheraghi.A Social Support, Basic Psychological needs and Psychological Well-Being Examining a Causal Model in Employed Women. Transformational Psychology. 2015;10(39):297-309.

9. Falco´n LM, Todorova I, Tucker K. Social Support, Life Events, and Psychological Distress Among the Puerto Rican population in the Boston Area of the United States. Aging & Mental Health. 2009; 13: 863-873. DOI: 10.1080/13607860903046552. [PMID: 19888706].

10. Turk DC. Melzack R. Handbook of pain assessment. New York: Guilford Press.2010.

11. Siedlecki K L, Salthouse T A, Oishi S, Jeswani S. The relationship between social support and subjective well-being across age. Social Indicators Research. 2014; 117(2), 561-576. doi: 10.1007/s11205-013-0361-4.[PMID: 25045200].

12. Faramarzi M, Salmalian H. Association of Psychologic and Nonpsychologic Factors with Primary Dysmenorrhea. Iran Red Crescent Med J. 2014; 16(8): e16307. doi: 10.5812/ircmj.16307. [PMC:4222008].

13. Hailemeske S, Demissie A, Assefa N. Primary dysmenorrhea magnitude, associated risk factors, and its effect on academic performance: evidence from female university students in Ethiopia. International Journal of Women's Health. 2016:8 489–496. DOI: 10.2147/IJWH.S112768.[PMID: 27695366].

14. 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;115(2):138–45. DOI: 10.3109/03009730903457218.

15. Hawker G.Mian S.kendzerska T. French M. Measures of adult pain: Visual analog scale for pain (vas pain), numeric rating scale for pain (nrs pain), mcgill pain questionnaire (mpq), short-form mcgill pain questionnaire (sf-mpq), chronic pain grade scale (cpgs), short form-36 bodily pain scale (sf-36 bps), and measure of intermittent and constant osteoarthritis pain (icoap). Arthritis care & research j. 2011;63(11). DOI: 10.1002/acr.20543. [PMID: 22588748].

16. Hawker GA, Mian S, Kendzerska T, French M. Measures of adult pain: Visual Analog Scale for Pain (VAS Pain), Numeric Rating Scale for Pain (NRS Pain), McGill Pain Questionnaire (MPQ), Short-Form McGill Pain Questionnaire (SF-MPQ), Chronic Pain Grade Scale (CPGS), Short Form-36 Bodily Pain Scale (SF-36 BPS), and Measure of Intermittent and Constant Osteoarthritis Pain (ICOAP). Arthritis Care Res (Hoboken). 2011 ;63(11):S240-52. doi: 10.1002/acr.20543. PMID: 22588748.

17.Human HA.Livarjani SH.check the narrative and standardization of social support questionnaire SSQ for students of secondary schools.the journal of educational sciences .2010;1(1):147-162. DOI: 10.1016/j.jclinepi.2014.11.003.

18. Ortiz MI. Primary dysmenorrheal among Mexican University Students: Prevalence, impact and treatment. European Journal of Obstetrics & Gynecology and Reproductive Biology. 2010; 296: 125-30. doi: 10.1016/j.ejogrb.2010.04.015.[PMID: 20478651].

19. Santina T, Wehbe N, Ziade F. Exploring dysmenorrhea and menstrual experiences among Lebanese female adolescents. Eastern Mediterranean Health Journal. 2012; 18: 857-63. DOI: 10.26719/2012.18.8.857. [PMID: 23057375].
20. Sidi I, Hounkpatin B, Obossou A, Salifou K, Vodouhe M, et al. Primary Dysmenorrhea in the Schools of Parakou: prevalence, impact and therapeutic approach. Gynecol Obstet. 2016; 6: 376-81. DOI: 10.4172/2161-0932.1000376.[PMID: 31057207].
21. Agarwal AK, Agarwal A. A study of dysmenorrhea during menstruation in adolescent girls. Indian Journal of Community Medicine. 2010; 35: 159. doi: 10.4103/0970-0218.62586.[PMID: 20606943].
22. Farshbaf Manei Sefat F, Abolghasemi A, Barahmand U, Hajloo N. A Survey of Menstruation Pattern and Prevalence of Dysmenorrhea in Ardabil Second High School Students. Iranian Journal of Epidemiology Atumn. 2017; 13 (3): 235-243. URL: http://irje.tums.ac.ir/article-1-5821-en.html.
23. Molazem Z, Alhani F, Anooshe M, Vagharseyyedin SA. Epidemiology of dysmenorrhea with dietary habits and exercise. Zahedan Journal of Research in Medical Sciences. 2011; 13: 41-45.
24. Akhavanakbari P, Ahangar Davoudi SH. Dysmenorrhea Frequency and Severity and Its Related Factors in Students of Ardabil University of Medical Science in 2009. Ardabil journal of health. 2010;1(3):41-47.
25. Ortiz MI, Rangel-Flores E, Carrillo-Alarcón LC,Veras-Godoy HA. Prevalence and impact of primary dysmenorrhea among Mexican high school students. Int J Gynaecol Obstet .2009;107(3):240-3. DOI: 10.1016/j.ijgo.2009.07.031.[PMID: 19716130].
26. Parveen N, Majeed R, Zehra N, Rajar U, Munir AA. Attitude and knowledge of medical students of Isra University about dysmenorrhoea and its treatment. J. Ayub Med. Coll. Abbottabad. 2009; **21**: 159– 162. doi: 10.1097/j.pain.0000000000000678.[PMID: 27454463].
27. Gilasi H, Suki Z, Kohzadi Sh, Khasi B. Investigate the prevalence of dysmenorrhea and some related factors in female students in Kashan University of Medical Sciences. Zanko Journal Of Medical Sciences. 2015:27-34.

4- In tables : there is error in percent or frequency. Was corrected.

Table2. Frequency distribution of respondents by intensity dysmenorrhea to social support

	social support	total	Significance

			a lot	**moderate**	**Low**		level
dysmenorrhea intensity	No pain	frequency (n)	33	6	1	40	P=.005
		%	11.5	2.1	0.3	13.9	
	Mild pain	frequency (n)	26	24	6	56	
		%	9.2	8.4	2.1	19.7	
	Moderate pain	frequency (n)	43	40	6	89	
		%	15	14	2.1	31.1	
	Severe pain	frequency (n)	42	35	6	83	
		%	14.7	12.3	2.1	29.1	
	very severe pain	frequency (n)	7	7	4	18	
		%	2.4	2.4	1.4	6.2	
Total		frequency (n)	151	112	23	286	
		%	52.8	39.2	8	100	

Associate Editor's Comments:

Associate Editor 1:
Dear Professor Lankarani,
Thank you for inviting me as Section Editor of manuscript entitled "The relationship between severity of dysmenorrhea and social support among female students of Ilam University of Medical Sciences". According to the reviewers' opinion. this manuscript needs English editing. More pver, there are some vague points regarding sampling and reporting the data. Also, the references should be updated as some of them are old.
Kindest regards
SE

EIC Decision:

The article needs revision .

Uploaded Files by Reviewers/Associate Editor/EIC:

Below you can find list of files attached by reviewers or associate editor or EIC during the review process (if any).

No file

How to Revise?

Please sign in to the journal with your account and follow the instruction to resubmit your revised paper. With respect to time limits, we are looking forward to hearing from you soon in the mentioned time frame.

2 Revision 1

1 comment · 1 Feb 2021

Associate Editor

MAJOR REVISION 1 Feb 2021

Dear Authors
Thank you for revising the manuscript. Please consider the points mentioned by one of the reviewers regarding sample size and two other corrections.
Kindest regards
SE

3

Revision 2

AUTHORS' RESPONSE TO REVIEWERS

Authors' reply to reviewers

The next pages contain the authors' point-by-point reply to the comments of this revision round, as submitted with the revised manuscript. It is published as the authors wrote it.

Reviewers' Comments:

Reviewer 1: hi dear, Thanks for your valuable suggestions
1. Given information about sample size calculation are not enough. There was no reference and information about p. Was corrected

In consultation with a statistical expert, sample size was calculated to be 270 subjects using Cochran formula (CI: 95**%,** Z = 1.96 p = q = 0.5 and d = 0.06). In order to eliminate the possibility of error and possible sample drop, 300 people were considered, but at the end, the data of 286 participants were analyzed.

$$n=\frac{\frac{Z^2 pq}{d^2}}{1+\frac{1}{N}\left(\frac{Z^2 pq}{d^2}-1\right)}$$

2. Report all the demographic variables in a Table. Was corrected.

The mean age of the samples was 21.62 ±2.10 years and the mean age of menarche was 13.57 ±1.33 years. Majority of the subjects (94.7%) were under 25 years of age. More than half of them (55.2%) reported a family income of between one and two million Tomans, the equivalent of $150-200. Seventy eighth percent were consuming 2 cups or less of coffee per day, 64% were consuming 3 cups or less of tea per day, and 74.5% were consuming less than 100 grams of chocolate per day, which is an acceptable amount of daily caffeine intake. More than two-thirds of subjects (69.9%) were rarely exercising during the day (table 1).

Table 1. Frequency distribution of demographic variables in the studied samples

Variable	**Category**	**N(%)**	**Mean (±SD)**
Age (years)	20 years and less	100(35)	21.62(±2.106)
	21-25	169(59.1)	
	26-30	17(5.9)	
Family income	Less than one million tomans	51(17.9)	

status(tomans)	Between one and two million tomans	178(55.2)	
	More than two million tomans	77(26.9)	
The age of menarche(years)	10	1(0.4)	13.57 (±1.33)
	11	13(4.6)	
	12	50(17.4)	
	13	87(30.4)	
	14	71(24.8)	
	15	39(13.6)	
	16 years and more	25(8.8)	
Daily tea consumption(glasses)	3 glasses or less	223(78)	
	4 glasses or less	61(21.3)	
	I do not consume	2(0.7)	
Daily consumption of coffee(cups)	2 cups or less	183(64)	
	3 cups or less	6(2.1)	
	I do not consume	97(33.9)	
Daily consumption of chocolate(grams)	Less than 100 grams	213(74.5)	
	More than 100 grams	35(12.2)	
	I do not consume	38(13.3)	
Do exercise during the day	Seldom	200(69.9)	
	Sometimes	74(25.9)	
	Always	12(4.2)	
Tatal		286(100)	

3. Change "relationship" by "association". Was corrected

Reviewer 2:
ok

3 Revision 2

1 comment · 13 Feb 2021

Associate Editor

MINOR REVISION 13 Feb 2021

Dear authors
Please revise the manuscript based on the reviewer's comments.
Kindest Regards
Editorial board

4

Revision 3

AUTHORS' RESPONSE TO REVIEWERS

Authors' reply to reviewers

The next pages contain the authors' point-by-point reply to the comments of this revision round, as submitted with the revised manuscript. It is published as the authors wrote it.

Reviewers' Comments:

Reviewer 1: hi dear, Thanks for your valuable suggestions
Sample size calculation must be based on the main aim of the study (correlation between severity of dysmenorrhea and social support) and information of a previous study.

It is noteworthy that we did not have a similar study whose purpose was the same as ours. Therefore, we used the opinion of a statistical consultant.

Was corrected: Study design and setting section, line 75-80, page 3

In consultation with a statistical expert, based on the main aim of the study (correlation between severity of dysmenorrhea and social support), sample size was calculated to be 270 subjects using Cochran formula (CI: 95%, Z = 1.96 p = q = 0.5 and d = 0.06). In order to eliminate the possibility of error and possible sample drop, 300 people were considered, but at the end, the data of 286 participants were analyzed.

$$n=\frac{\frac{Z^2 pq}{d^2}}{1+\frac{1}{N}\left(\frac{Z^2 pq}{d^2}-1\right)}$$

Reviewer 2:
ok

4 Revision 3

1 comment · 28 Feb 2021

Associate Editor

ACCEPT 28 Feb 2021

Dear Authors,
I am pleased to inform you that your manuscript has been accepted. Please follow the journal's guideline for the rest of the process.
Kindest Regards
Associate editor