Original Article

Sex education and Afghan migrant adolescent women

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Abstract

Introduction: Successful sex is one of the greatest behavioral needs of couples, especially those who marry at an early age. The best way to access information is education and learning. Face to face training is one of the most common methods, with the advancement of technology, multimedia training can be a good alternative method to sex education. This study was designed to comparison between two educational method Multimedia and Face to face on sexual function of Afghan Migrant Adolescent Women. **Methods:** The study was a quasi-experimental educational intervention conducted in selected charity centers in Mashhad. The selected centers were randomly chosen as face to face intervention (n = 36), multimedia intervention (n = 36) and control (n = 36) groups. Our method of sampling was convenient at each center. Intervention groups received four one-hour sessions of sex education using various face to face and multimedia methods. Sexual function were measured using female sexual function index (FSFI) before, immediately and 8 weeks after the intervention. Data were analyzed with SPSS version 16. **Results:** The level of sexual function did not show a significant difference in groups before the intervention, but these increased significantly immediately (P = 0.005) and 8 weeks later (P < 0.001). **Conclusion:** Because of the taboo of sexual issues and the lack of difference between the two methods in improving sexual function, multimedia method is a good alternative educational method.

Keywords: Face to face, multimedia, sex education, sexual function

Introduction

More than one-third of women marry in adolescence,[1] and half of these marriages occur in Sub-Saharan Africa and South Asia.[2] Afghanistan is one of the South Asian countries[3] And the 2016 census shows the extensive migration of Afghans to Iran.[4,5] Teen marriage occurs in some Afghan ethnic populations due to deep cultural roots and weak socioeconomic status.[3,6] There are no accurate statistics of Afghan migrants' marriage in Iran.[7] According to the National organization for Civil Registration website in 2015, the largest population group for marriage is for women aged 15-19 years.[8] Although open communication between parents and their children regarding sex-related issues is important[9] but unfortunately it is forbidden to talk about marriage and sex in Afghan society.[3] One of the factors affecting the success of sexual relationship is satisfaction with married life which depend on sexual function[10] and plays an important role in the health, quality of life and life satisfaction of the couples.[11] Due to the high prevalence of sexual dysfunction[12-14] and existence a relationship between sexual Function and age in women, which underlines the importance of sexual education at lower ages.[15] Lack of adequate knowledge and incorrect attitudes regarding sexual matters.[16,17] are among factors affecting divorce, especially among newly married couples.[18,19] The best tool to achieve a desirable sexual Function is education and creating a positive attitude towards sexual matters.[20,21] Sex education is one of the priorities of women's health[22] and has been heralded as

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effective in promoting sexually healthy behavior in youth.[23-25] Even with the spread of sex education in developing countries compared to the past,[26] Cultural background and some strict rules may be effective in the failure of sex education.[27] Therefore, synchronizing the education with cultural norms of the society that is compatible with the needs of the target group with regards to the religious background of these societies may be very helpful.[28-30] Face to Face training is common and traditional methods of education in the health care system.[31,32] Given the widespread use of technology and the success of sex education in European countries,[33,34] the use of new methods of sex education and update and modernize standards[35] in Islamic countries seems to be necessary given the taboo of sexual issues.[3,36,37] Multimedia is a new and interesting educational method that encourages learning.[38,39] Sexual matters cannot be discussed openly according to cultural norms in Iran and[3,37] and Not addressing these barriers[40] may undermine the policy's intention of increasing knowledge about sexuality and reproduction,[41] Therefore, this study was conducted to determine the comparison between two educational method Multimedia and Face to face about Sexual issues on sexual function of Afghan Migrant Adolescent Women.

Materials and Methods

Study design

This study was a quasi-experimental educational intervention conducted in 2018 on 108 women who referring to three selected charity centers in three immigrant neighborhoods of Mashhad.

Inclusion criteria

Young Afghan females aged 10-24 years who could communicate in Farsi, married officially, were the only wives of her husbands, married for at least one year, did not receive official sexual education in the past, lacked medical diseases, were not addicted to opium and psychedelics, did not experience stressful events in the past six months, were not pregnant or lactating, did not have an abortion in the past three months, lived with her husband, had sexual intercourse with him, had access to a computer or CD player and knew how to work with them.

Exclusion criteria

Pregnancy, lack of sexual intercourse and occurrence of stressful events during the study, withdrawal from the study and missing the third and fourth educational sessions.

Sample size

To determine the sample size according, use the formula $n = \frac{\lambda}{\Delta}$ [42] and k = 3, λ was calculated as 12.66. Δ was calculated as follows from past study[43] and sample size was calculated 40 in each group with 10% of the falls.

$$\left(44 \times \left(3.98\right)^2\right) \times 2 + 44$$

$$\widehat{\sigma^2} = S^2 = \frac{\times\left(3.47^2\right)}{45 + 45 + 45 - 3} = 14.58$$

$$\Delta = \frac{1}{\sigma^2}\sum\left(\mu_i - \bar{\mu}\right)^2$$

$$\bar{\mu} = \frac{3.5 \times 2 + 0.9}{3} = 2.6$$

$$\Delta = \frac{1}{14.58}\left[\left(3.5 - 2.6\right)^2 \times 2 + \left(0.9 - 2.6\right)^2\right] \sim 0.36$$

$$n = \frac{\lambda}{\Delta} = \frac{12.66}{0.36} = 35.17 \sim 36$$

Ethical considerations

The study protocol was approved by the Ethics Committee of Iran University of Medical Sciences (Ethics approval code: IR.IUMS.REC1397.027) and registered in the Iranian Registry of Clinical Trials (Registration code: IRCT20180611040054N1). The study started after obtaining approval from Mashhad University of Medical Sciences (approval number: 97/32620).

Data collection

Data collection was done by demographic and FSFI questionnaires that were completed by self-report. The FSFI is a 19-item questionnaire that evaluates female sexual Function in 6 domains of desire, arousal, lubrication, orgasm, satisfaction, and pain. It was developed by Rosen *et al.* The six domain scores are added to obtain the full scale score, ranging from 2 to 36.[44] In Iran, the validity of the Persian version of the tool had been approved by Fakhri *et al.*[45]

Procedure

After receiving ethical clearance, an introduction letter was issued by Iran University of Medical Sciences, which was presented to Mashhad University of Medical Sciences. Then, three charity centers in three different suburbs regions of the Mashhad city that had the largest number of female Afghan visitors were selected. The selected centers were divided into face to face intervention, multimedia intervention and control groups by lottery. The eligible subjects were enrolled and informed consent was obtained from them. Then, they were asked to complete the demographic and FSFI questionnaire. In addition to routine programs of the center, the subjects in the face to face group received four one-hour sex education sessions in four sessions, one session per week. Multimedia group received 4 CDs, one CD per week, for four weeks. Giving the next CD was dependent on the researcher's assurance of observing the previous. Details of the content of the sex education sessions follow. First session: male and female reproductive organs, menstrual cycle, puberty, masturbation, reproductive health. Second session: normal and abnormal vaginal discharge, gynecologic infections, contraceptive methods. Third session: importance of sexual relationship in married life, communication skills for couples, methods to improve the quality of sex, different sex positions, married life in Islam, legal rights of couples. Forth session: normal sexual cycle stages, sexual disorders and treatment. Finally, the FSFI were completed by all subjects. To evaluate the durability of this educational methods, the subjects were contacted via phone to

attend the center and complete the questionnaires after 8 weeks. The control group only received routine programs of the charity center and after the study, the multimedia CD was also distributed among them. Data were analyzed using SPSS software version 16 with Descriptive statistics and inferential statistics [Figure 1].

Results

According to the results of Chi-square and Fisher's exact tests, the three groups were homogeneous in terms of Demographic characteristics. The data of 108 subjects; 36 in each group, was finally analyzed. Table 1 presents the demographic characteristics of the participants.

Discussion

Preventive care is a key focus in a good primary care practice.[46] Sex education affects levels of prevention by affecting sexual health,[47] so that with increased sexual awareness,[48] problems such as divorce will decrease as a result of lack of awareness of sexual issues.[49-52] It can be said that educational strategies are meant to prevent and increase self-care in individuals. Given that sexual health is a major need, primary care physicians who are at the forefront of communication with clients can help address this need by having sufficient knowledge of sexual issues.[30,53] The use of various health promotion strategies such as multimedia and educational materials in clinics and by primary care physicians, can reduce sexual taboos in developing societies.[54]

In the present study, there was no significant difference in the mean score of sexual Function in the three groups before the intervention ($p = 0.957$), while significant differences were observed immediately ($p = 0.005$) and 8 weeks after the intervention ($p < 0.001$) [Table 2 and Table 3]. Moreover, the difference in desire ($p < 0.001$), arousal ($p < 0.001$), lubrication ($p < 0.001$), orgasm ($p < 0.001$) satisfaction ($p < 0.001$) and pain ($p = 0.028$), was significant.

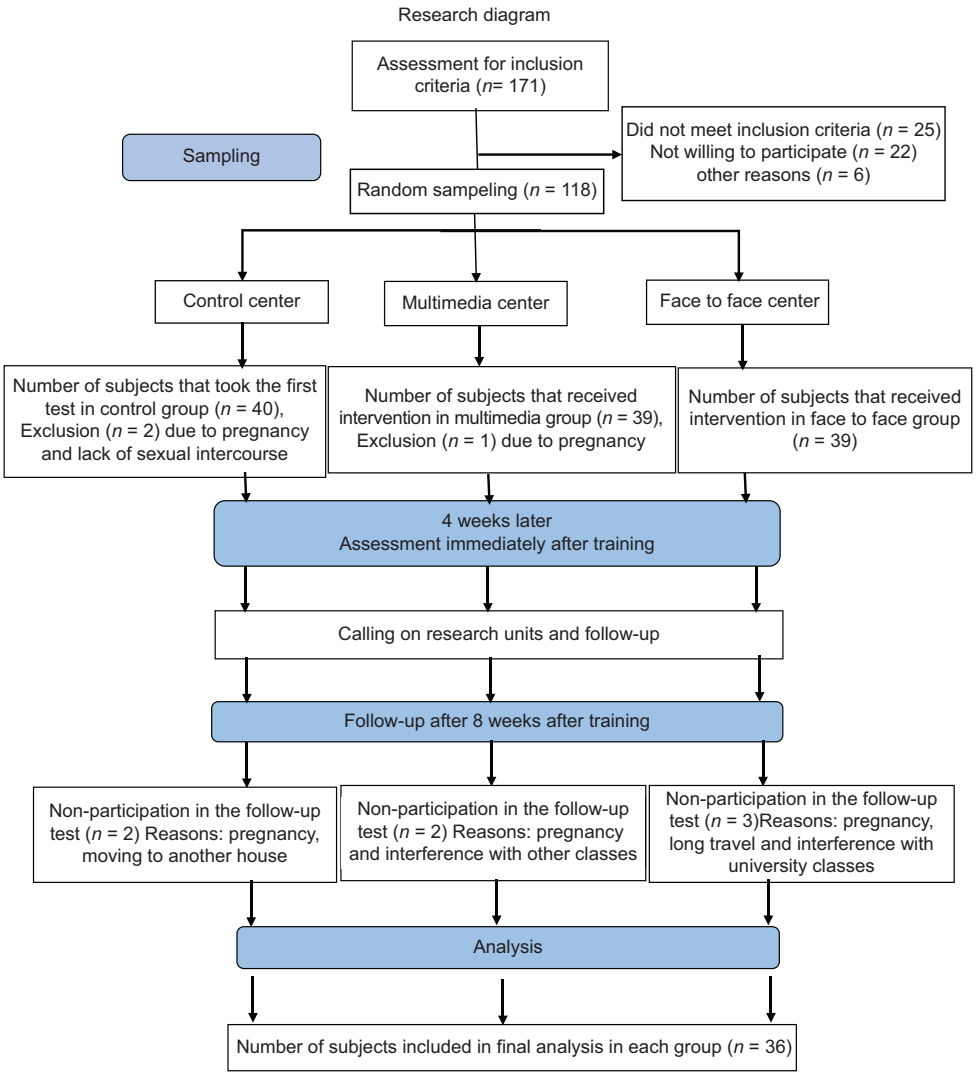

Figure 1: Comparison of trend of sexual Function score changes in groups before and after 4 and 8 weeks after the intervention

Table 1: Demographic characteristics of participants in groups

Groups	Variable	Mean±SD			Test result
		Face to face	Multimedia	Control	
Age		22/69 (± 0/261)	22/92 (± 0/197)	22/39 (± 0/285)	F=1/120; P=0/330
Husband's age		28/06 (± 0/343)	27/64 (± 0/440)	26/86 (± 0/456)	F=2/123; P=0/125
Age at marriage		19/67 (± 0/340)	18/81 (± 0/398)	19/61 (± 0/322)	F=1/844; P=0/163

Demographic	Variable	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage	Test result
Duration of marriage (years)	1-5	34	94/4	28	77/8	32	88/9	df=2, P=0/130
	6-10	2	5/6	8	22/2	4	11/1	
Occupation	Housewife	34	94/4	31	86/1	31	86/1	df=2, P=0/479
	Employed	2	5/6	5	13/9	5	13/9	
Education level	Unfinished high school	11	30/6	14	38/9	13	36/1	df=2, χ^2=0/568, P=0/753
	High school diploma and above	25	69/4	22	61/1	23	63/9	
Husband's occupation	Employed	34	94/4	33	91/7	34	94/4	df=2, P=1/000
	Unemployed	2	5/6	3	8/3	2	5/6	
Husband's education level	Unfinished high school	15	41/7	19	52/8	15	41/7	df=2, χ^2=1/195, P=0/550
	High school diploma and above	21	58/3	17	47/2	21	58/3	
Number of children	0-1	32	88/9	24	66/7	30	83/3	df=2, χ^2=5/937, P=0/051
	2-4	4	11/1	12	33/3	6	16/7	
Number of pregnancies	0-1	27	75/0	23	63/9	28	77/8	df=2, χ^2=1/938, P=0/379
	2-4	9	25/0	13	36/1	9	22/2	
Abortion	Positive	9	25/0	6	16/7	3	8/3	df=2, χ^2=3/600, P=0/165
	Negative	27	75/0	30	83/3	33	91/7	
Self-selected marriage	Yes	31	86/1	34	94/4	34	94/4	df=2, P=0/500
	No	5	13/9	2	5/6	2	5/6	
Living with other people	Yes	6	16/7	3	8/3	7	19/4	df=2, χ^2=1/908, P=0/385
	No	30	83/3	33	91/7	29	80/6	
Private bedroom	Yes	26	72/2	22	61/1	31	86/1	df=2, χ^2=5/751, P=0/056
	No	10	27/8	14	38/9	5	13/9	
Economic status	Unfavorable	3	8/3	3	8/3	7	19/4	df=4, P=0/613
	Relatively favorable	27	75/0	28	77/8	25	69/4	
	favorable	6	16/7	5	13/9	4	11/1	
Average duration of intercourse	1-10 min	5	13/9	10	27/8	5	13/9	df=4, χ^2=4/750, P=0/314
	11-30 min	24	66/7	20	55/6	20	55/6	
	31-60 min	7	19/4	6	16/7	11	30/6	
Number of sexual intercourses per month	3-8 times	15	41/7	21	58/3	15	41/7	df=4, P=0/157
	9-16 times	14	38/9	13	36/1	19	52/8	
	17-25 times	7	19/4	2	5/6	2	5/6	

Table 2: Comparison the effect of face to face and multimedia sex education on sexual Function in groups before and 4 and 8 weeks after the intervention (n=108)

Variable	Measurement time	Mean (SD)			F	P (Repeated measured)
		Before	After 4 weeks	After 8 weeks		
Sexual Function	Face to face	67/17 (14/52)	75/78 (12/74)	77/42 (11/97)	36/32	<0/001*
	Multimedia	66/56 (13/24)	73/19 (12/77)	77/11 (11/57)	29/47	<0/001*
	Control	66/19 (14/16)	65/89 (13/64)	65/11 (13/36)	3/604	0/054

Table 3: Comparison the effect of face to face and multimedia sex education on sexual Function in groups before and 4 and 8 weeks after the intervention (n=108)

Time	Variable	Mean (SD)		P	Mean (SD)		P	Mean (SD)		P
		Before	After 4 weeks		Before	After 8 weeks		After 4 weeks	After 8 weeks	
Sexual Function	Face to face	67/17 (14/52)	75/78 (12/74)	<0/001*	67/17 (14/52)	77/42 (11/97)	<0/001*	75/78 (12/74)	77/42 (11/97)	0/226
	Multimedia	66/56 (13/24)	73/19 (12/77)	<0/001*	66/56 (13/24)	77/11 (11/57)	<0/001*	73/19 (12/77)	77/11 (11/57)	<0/001*
	control	66/19 (14/16)	65/89 (13/64)	1/000	66/19 (14/16)	65/11 (13/36)	1/000	65/89 (13/64)	65/11 (13/36)	1/000

The results of a study by Sabeti *et al.* showed that participation in sexual health educational sessions improved the score of sexual Function and all of its components that was consistent with the results of this study.[55] The results of a study by Nameni (2014) indicated, sex education effects on the total score of sexual Function and the scores of desire and satisfaction, which is consistent with our results. Lack of consistency in the scores of other components may originate from differences in the age range of the subjects and using immigrants as samples.[56] In a study by Baradaran-Akbarzadeh *et al.* Sexual function and all its dimensions were improved after intervention in the intervention group.[57]

In this study, face to face and multimedia education could help women through improving the scores of sexual function. In the study of Shams Mofarahe *et al.*(2019), which examined the effect of face to face marital counseling on couples' sexual satisfaction, the level of sexual satisfaction was higher in the intervention group[58] which all the mentioned studies were consistent with the present study.

In multimedia method, messages are transferred through video or audio media, which enhances message delivery.[59] A study conducted by Jeste *et al.* also indicated that multimedia could be used for a better interaction together with other services as a complement.[60] One study found that multimedia education improved the awareness of pregnant women regarding warning signs during pregnancy.[61]

This modern educational method can be used for sexual education in Islamic societies considering the taboo nature of these topics and the prevailing cultural, religious, social, and political beliefs in these societies. Preparing a proper sexual educational content for multimedia education decreases the costs of face-to-face education and satisfies the couples' needs for sexual information.

Key point

- Most marriages occur in immigrants living in Iran during adolescence.
- Women's ignorance of various aspects of sexual issues can lead to the formation of unsuccessful sexual relationships and undesirable sexual function.
- Due to the existence of cultural, social and religious barriers in the sexual education of Islamic societies, the use of new educational methods such as multimedia seems necessary.

Limitations

Since all questionnaires were self-reported by the participants. The researcher was a co-host of the participants and by communicating properly they were assured of confidentiality to complete the questionnaires with integrity.

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Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form the patient (s) has/have given his/her/their consent for his/her/their images and other clinical information to be reported in the journal. The patients understand that their names and initials will not be published and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

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Nil.

Conflicts of interest

There are no conflicts of interest.

References

1. Basha PC. Child marriage: Causes, consequences and intervention programmes. International Journal of Humanities and Social Science Research 2016;2:19-24.
2. UNFPA. Marrying too young: End child marriage New York: United Nation Population Fund; 2012 [cited 2020 Mar 05]. 8]. Available from: https://www.unfpa.org/sites/default/files/pub-pdf/MarryingTooYoung.pdf.
3. Hadi M. An Analysis of Policy and Social Factors Impacting the Uptake of Sexual and Reproductive Health Services in Kabul, Afghanistan: Durham; 2016.
4. UNHCR. Global trends forced displacement in 2015 Geneva, Switzerland. 2015 Available from: https://www.unhcr.org/statistics/unhcrstats/576408cd7/unhcr-global-trends-2015.html. [Last cited on 2020 Mar 04].
5. Statics TCoI. The choice of results public statistical from population and residence Tehran: Statistical centre of Iran. Office of the Head, Public Relations and International Cooperation; 2017. Available from: http://www.amar.org.ir. [Last cited on 2020 Mar 12].
6. Afghanistan CSOotGotIRo. Afghanistan living conditions survey 2016-17 Kabul 2018 Available from: http://cso.gov.af/Content/files/ALCS/ALCS%202016-17%20Analysis%20report%20%20English%20_compressed (1).pdf. [Last cited on 2019 Mar 03].
7. Saidi S. An ethnographic survey of the phenomenon of early marriage among Afghan immigrants (Hazara People) in two cities of Hamburg (Germany) and Tehran (Iran). Iran J Anthropol Res 2017;7:73-93.
8. Registration NOfC. The age distribution of couples during the marriage of 1394/marriage divorce ratio 2015 Available from: http://www.sabteahval.ir/Upload/Modules/Contents/asset99/e-g-94.pdf. [Last cited on 2019 May 15].
9. Shin H, Lee JM, Min JY. Sexual knowledge, sexual attitudes, and perceptions and actualities of sex education among elementary school parents. Child Health Nurs Res 2019;25:312-23.
10. Tavakol Z, Mirmolaei ST, Momeni Movahed Z, Mansori A. The relationship between sexual function and sexual satisfaction in women referring to centers sanitary health south of Tehran. Sci J Hamedan Nurs Midwifery Faculty (Nasim Danesh) 2012;19:50-4.
11. Kamyabi Nia Z, Azhari S, Mazlom SR, Asghari Pour N.

Relationship between religion and sexual function of women of reproductive age. Iran J Obstet Gynecol Infertil 2016;19:9-19.

12. Fajewonyomi BA, Orji EO, Adeyemo AO. Sexual dysfunction among female patients of reproductive age in a hospital setting in Nigeria. J Health Popul Nutr 2007;25:101-6.
13. Ghiasi A, Keramat A. Prevalence of sexual dysfunction among reproductive-age women in iran: A systematic review and meta-analysis. J Midwifery Reprod Health 2018;6:1390-8.
14. Ramezani Tehrani F, Farahmand M, Mehrabi Y, Malkafzali H, Abedini M. Prevalence of female sexual dysfunction and its correlated factors: A population based study. Payesh 2012;11:869-75.
15. Mazinani R, Akbari Mehr M, Kaskian A, Kashanian M. Evaluation of prevalence of sexual dysfunctions and its related factors in women. Razi Journal of Medical Sciences 2013;19:59-66.
16. Kantor LM, Lindberg L. Pleasure and sex education: The need for broadening both content and measurement. Am J Public Health 2020;110:145-8.
17. Meiksin R, Campbell R, Crichton J, Morgan GS, Williams P, Willmott M, *et al.* Implementing a whole-school relationships and sex education intervention to prevent dating and relationship violence: Evidence from a pilot trial in English secondary schools. Sex Educ 2020:1-17.
18. Kaur Ahuja V, Patnaik S, Gurchandandeep, Lugani Y, Sharma N, Goyal S, *et al.* Perceptions and preferences regarding sex and contraception, amongst adolescents. J Family Med Prim Care 2019;8:3350-5.
19. Pourmarzi D, Rimaz S, Merghati Khoei E. Sexual and reproductive health educational needs in engaged couples in Tehran in 2010. Sex Res Soc Policy 2014;11:225-32.
20. Astle S, McAllister P, Emanuels S, Rogers J, Toews M, Yazedjian A. College students' suggestions for improving sex education in schools beyond 'blah blah blah condoms and STDs'. Sex Educ 2020:1-15. doi: 10.1080/14681811.2020.1749044.
21. Sadri Damirchi E, Poorzor P, Esmaili Ghazivaloii F. Effectiveness of sexual skills education on sexual attitude and knowledge in married women. J Family Counsel Psychother 2016;6:1-10.
22. Fund UNP, Fund UNP, Fund UNCs, Women UNEfGEatEo, Organization WH, UNESCO. International tchnical guidance on sexuality education: an evidence-informed approach France 2018 [cited 2020 Mar 4]. 2nd rev. ed.: [Available from: https://unesdoc.unesco.org/ark:/48223/pf0000260770.
23. Education EEGoS. Sexuality education – what is it? Sex Educ 2016;16:427-31.
24. Krebbekx W. What else can sex education do? Logics and effects in classroom practices. Sexualities 2018;22:1325-41.
25. Thin Zaw PP, McNeil E, Oo K, Liabsuetrakul T, Htay TT. Abstinence-only or comprehensive sex education at Myanmar schools: Preferences and knowledge among students, teachers, parents and policy makers. Sex Educ 2020:1-16.
26. Zhao P, Yang L, Sa Z, Wang X. Propriety, empowerment and compromise: Challenges in addressing gender among sex educators in China. Sex Educ 2020:1-16.
27. Smerecnik C, Schaalma H, Gerjo K, Meijer S, Poelman J. An exploratory study of muslim adolescents' views on sexuality: Implications for sex education and prevention. BMC Public Health 2010;10:533.
28. Leung H, Shek DTL, Leung E, Shek EYW. Development of contextually-relevant sexuality education: Lessons from a comprehensive review of adolescent sexuality education across cultures. Int J Environ Res Public Health 2019;16:621.
29. Refaie Shirpak K, Eftekhar Ardebili H, Mohammad K, Maticka-Tyndale E, Chinichian M, Ramenzankhani A, *et al.* Developing and testing a sex education program for the female clients of health centers in Iran. Sex Educ 2007;7:333-49.
30. Velavan J. A family physician's journey in exploring sexual health perceptions and needs in a boarding school community. J Family Med Prim Care 2020;9:395-401.
31. Karimi Moonaghi H, Hasanzadeh F, Shamsoddini S, Emamimoghadam Z, Ebrahimzadeh S. A comparison of face to face and video-based education on attitude related to diet and fluids: Adherence in hemodialysis patients. Iran J Nurs Midwifery Res 2012;17:360-4.
32. Sargazi M, Mohseni M, Safar-Navade M, Iran-Pour A, Mirzaee M, Jahani Y. Effect of an educational intervention based on the theory of planned behavior on behaviors leading to early diagnosis of breast cancer among women referred to health care centers in Zahedan in 2013. Iran Quart J Breast Dis 2014;7:45-55.
33. Ranjbar Z, Amiri Zadeh S. An approach to the use of e-learning in education. J Sci Eng Elites 2018;3:42-9.
34. Rogers E, Hemal K, Tembo Z, Mukanu M, Mbizvo M, Bellows B. Comprehensive sexuality education for adolescents in Zambia via the mobile-optimized website TuneMe: A content analysis. Am J Sex Educ 2020;15:82-98.
35. Brown C, Quirk A. Momentum is building to modernize sex education American: Center for American Progress; 2019 Available from: https://cdn.americanprogress.org/content/uploads/2019/05/23052627/Modernize-Sex-Ed_brief11.pdf. [Last cited on 2020 Mar 13].
36. Fund UNCs. The opportunity for in East Asia and the Pacific digital sexuality education Bangkok: UNICEF East Asia and Pacific; 2019 [cited 2020 Mar 20]. Available from: https://www.unicef.org/eap/media/4646/file/Digital%20sexuality%20education.pdf. [Last cited on 2020 Mar 20].
37. Mirzaii Najmabadi K, Babazadeh R, Mousavi SA, Mohammad S. Iranian adolescent girls' challenges in accessing sexual and reproductive health information and services. J Health 2018;8:561-74.
38. Barzegar N, Farjad S, Hosseini N. The effect of teaching model based on multimedia and network on the student learning (Case study: Guidance schools in Iran). Procedia-Soc Behav Sci 2012;47:1263-7.
39. Park C, Kim D-g, Cho S, Han H-J. Adoption of multimedia technology for learning and gender difference. Comput Hum Behav 2019;92:288-96.
40. Zulu JM, Blystad A, Haaland MES, Michelo C, Haukanes H, Moland KM. Why teach sexuality education in school? Teacher discretion in implementing comprehensive sexuality education in rural Zambia. Int J Equity Health 2019;18:116-27.
41. Scott RH, Smith C, Formby E, Hadley A, Hallgarten L, Hoyle A, *et al.* What and how: Doing good research with young people, digital intimacies, and relationships and sex education. Sex Educ 2020:1-17.
42. Chow S-C, Shao J, Wang H. Sample Size Calculation in Clinical Research. United States of America: Taylor and

Francis Group; 2008. 73 p.

43. Behboodi Moghadam Z, Rezaei E, Khaleghi Yalegonbadi F, Montazeri A, Arzaqi SM, Tavakol Z, *et al.* The effect of sexual health education program on women sexual function in Iran. J Res Health Sci 2015;15:124-8.
44. Rosen R, Brown C, Heiman J, Leiblum S, Meston C, Shabsigh R, *et al.* The female sexual function index (FSFI): A multidimensional self-report instrument for the assessment of female sexual function. J Sex Marital Ther 2000;26:191-208.
45. Fakhri A, Mohammadi Zeidi I, Pakpour Haji Agha A, Morshedi H, Mohammad Jafari R, Ghalambor Dezfooli F. Psychometric properties of iranian version of female sexual function index. Jundishapur Sci Med J 2011;10:345-54.
46. Rahman SM, Angeline RP, Cynthia S, David K, Christopher P, Sankarapandian V, *et al.* International classification of primary care: An indian experience. J Fam Med Prim Care 2014;3:362-7.
47. Farnam F, Pakgohar M, Mirmohamadali M, Mahmoodi M. Effect of sexual education on sexual health in Iran. Sex Educ 2008;8:159-68.
48. Mellini L, Poglia Mileti F, Sulstarova B, Villani M, Singy P. HIV sexual risk behaviors and intimate relationships among young Sub-Saharan African immigrants in Switzerland: A brief report. Int J Sex Health 2019;32:1-7.
49. Barikani A, Sarichlow ME, Mohammadi N. The cause of divorce among men and women referred to marriage and legal office in Qazvin, Iran. Glob J Health Sci 2012;4:184-91.
50. Bolhari J, Ramezanzadeh F, Abedinia N, Naghizadeh MM, Pahlavani H, Saberi SM. To explore identifying the influencing factors of divorce in Tehran. Iran J Epidemiol 2012;8:83-93.
51. Mohammadsadeg A, Kalantar-Kosheh SM, Naeimi E. The experience of sexual problems in women seeking divorce and women satisfied with their marriage: A qualitative study. J Qual Res Health Sci 2018;7:35-47.
52. Ramezani Farkhad A, Saleh Abadi A, Gazlan Tosi J, Safdarzade M, Sadeghi S. Identifying the Effective Factors on Emotional Divorce. 1st ed. Mashhad: Avaye Rana; 2013.
53. Rabathaly PA, Chattu VK. An exploratory study to assess primary care physicians' attitudes toward talking about sexual health with older patients in Trinidad and Tobago. J Fam Med Prim Care 2019;8:626-33.
54. Rabathaly P, Chattu VK. Sexual healthcare knowledge, attitudes and practices amongst primary care physicians in Trinidad and Tobago. J Fam Med Prim Care 2019;8:614-20.
55. Sabeti F, Tavafian SS, Zarei F. The effect of educational intervention on sexual function of women referred to health center of South of Tehran. Nurs Pract Today 2018;5:280-9.
56. Nameni F, Yousefzade S, Golmakani N, Najaf Najafi M, Ebrahimi M, Modarres Gharavi M. Evaluating the effect of religious-based sex education on sexual function of married women. Evid Based Care 2014;4:53-62.
57. Baradaran-Akbarzadeh N, Tafazoli M, Mojahedi M, Mazlom SR. The effect of educational package on sexual function in cold temperament women of reproductive age. J Educ Health Promot 2018;7:65.
58. Shams Mofaraheh Z, Botlani Esfahani S, Shahsiah M. The effect of marital counselling on sexual satisfaction of couples. J Hum Health 2015;1:85-9.
59. Asadi S, Ghobadi E. Multimedia taching and its effects on learning and retention of english grammar. J Inform Commun Technol 2012;4:9-17.
60. Jeste DV, Dunn LB, Folsom DP, Zisook D. Multimedia educational aids for improving consumer knowledge about illness management and treatment decisions: A review of randomized controlled trials. J Psychiatr Res 2008;42:1-21.
61. Rajabi Naeeni M, Farid M, Tizvir A. A comparative study of the effectiveness of multimedia software and face-to-face education methods on pregnant women's knowledge about danger signs in pregnancy and postpartum. J Educ Community Health 2015;2:50-7.