



Anxiety and Depression among Reproductive Aged Women with Fertility Problem and Its Associated Factors: A Hospital-Based Cross-Sectional Comparative Study

Sushan Man Shrestha¹, Samir Shrestha²

ABSTRACT

Introduction: The infertility is one of the growing public health issues in Nepal and the anxiety and depression related to this problem is not much studied.

Objective: This study aims to find status of anxiety and depression among the reproductive aged women having fertility problem and its associated factors.

Methods: A cross-sectional comparative study was conducted in Kathmandu from November 2019 to July 2020 with a sample size of 177 respondents including a group of 86 women with fertility problem and another group of 91 women without fertility problem using simple random sampling. Hospital Anxiety and Depression Scale was used to assess the anxiety and depression of the respondents. Chi Squared test and multivariate logistic regression was applied to find the association of anxiety and depression with socio-demographic, personal and health related variables.

Results: The status of no, mild, moderate and severe anxiety were 52.7%, 24.2%, 17.6% and 5.5% respectively in fertile group and 30.2%, 23.3%, 14.0% and 32.6% in infertile group. Similarly, the status of no, mild, moderate and severe depression were 64.8%, 29.7%, 4.4% and 1.1% in fertile group and 50.0%, 14.0%, 8.1% and 27.9% in infertile group respectively. From multivariate logistic regression, anxiety was found to be statistically significant between with occupation [AOR 0.407 (0.203-0.817)], perceived income stress [AOR 2.124 (1.062-4.249)] and fertility status [AOR 2.463(1.254-4.838)] and depression was found to be statistically significant with difficulties in relationship between couple [AOR 8.216(2.365-28.548)].

Conclusions: This study revealed occupation status, perceived income stress and fertility status as the factors associated to anxiety and difficulties in relationship between couple as the factor associated with depression. The findings will be useful to improve the situation of anxiety and depression among infertile women in relation to both public health and clinical practice.

Keywords: Infertility, anxiety, depression

BACKGROUND

The issue of infertility is an emerging problem in Nepal and it is considered one of the neglected public health issues in the world. (1,2) Infertility is actually considered as stressful life event and anxiety and depressive symptoms are usual responses to the life crisis of the infertile women. (2) As defines by WHO, -ICMART, infertility

is “a disease of the reproductive system defined by the failure to achieve a clinical pregnancy after 12 months or more of regular unprotected sexual intercourse”. (3) It is estimated that one couple out of every ten couples has been facing this problem (4). The estimation of infertility in reproductive aged women and couples around the world who are experiencing difficulty in conceiving a child range from

Received on: 6 August 2024
Approved on: 16 August 2024

Check for updates

¹ Central Department of Public Health, Institute of Medicine, Tribhuvan University

² Department of Health Services, Ministry of Health and Population, Government of Nepal

Correspondence to:

Sushan Man Shrestha
Central Department of Public Health, Institute of Medicine
Tribhuvan University
Kathmandu, Nepal
Email: sushan.shrestha@gmail.com

approximately 8-15 % worldwide. (4-6) Regarding South Asia, the World Fertility Survey estimated infertility as 4% in Bangladesh, 6% in Nepal, 5% in Pakistan and 4% in Sri Lanka. (7)

Problems related to infertility faced by women in their life including distress may lead to various stress related problems. (8) Stress could be leading to the mental health issues for infertile people as the magnitude of its effects depends on personal coping behaviors. Infertility is a stressor that affects both husbands and wives but it is more stressful for women, though only few studies have included men. (9) Infertility is often associated with a stress or psychological strain that may lead to manifest in anxiety and depressive symptoms which can be both a cause and a consequence of the disorder. (10,11)

Despite the information on physical and emotional burdens were well studied regarding infertility, there remains a substantial gap in research focusing on the mental health challenges confronted by these women specially in the country like Nepal. The aim of this study is to assess the status and prevalence of anxiety and depression among the reproductive aged women having fertility problem with compare to the women not having fertility problem. It also intends to identify its associated factors regarding socio-demographic, personal and health related characteristics.

METHODS

A cross-sectional comparative study was carried out between November 2019 and July 2020 to investigate the status of anxiety and depression among the reproductive aged women with and without fertility problem. The respondents were selected from health institutions with infertility care services and obstetrics & gynecology services. The study was conducted in Vatsalya Natural IVF, Naxal and Out Patient Department of obstetrics & gynecology, Tribhuvan University Teaching Hospital, Maharajgunj, Kathmandu after having all the ethical procedure and approval to conduct study.

The total of 182 sample size for this study was calculated by using the formula for two comparative groups using statulator.com and the reference was taken with prevalence of depression 19 % in fertile and 41 % in infertile group. (12) The confidence level and power was taken at 0.95 and 0.85 respectively and non-response rate was adjusted at 10%. Five responses from infertile group were discarded due to incompleteness. The sample size of 177 reproductive aged women were taken in this study with 86 women with fertility problem and another group of 91 women without fertility problem.

The respondents were selected from the daily OPD register using simple random sampling method from both health institutions separately. Data were collected

for from each of the respective study sites.

The data was collected through a questionnaire to access the information about the study. The study variables are addressed in the questionnaire in accordance with the objectives of the study. Dependent variables considered in this study are the status of anxiety and depression. The independent variables taken in this study are mainly divided into socio-demographic, personal and health related variables. The age group, ethnicity, religion, residential status, education, occupational status, perceived income stress, duration of marriage, previous history of abortion or miscarriage, perceived support from husband and difficulties in relationship between couple are taken as independent variables. Hospital Anxiety and Depression Scale (HADS), which was already validated in both English and Nepali language was used to determine the anxiety and depression of the respondents. In this tool, there were subscales containing 7 items for both anxiety and depression. Each item is rated on a four-point scale ranges from 0-3 (3 indicating maximum symptom severity), and the scores are summed. The subscale therefore has a summed score with a potential range from 0 to 21. The score from 0-7 indicates no condition, 8-10 mild condition, 11-14 moderate condition and 15-21 severe condition for both anxiety and depression. Face to face interview technique was used for data collection. The study did not take husband or male partner in the study even though infertility is the concern of the couple. (13)

The data was collected by researchers and manually check for incompleteness and inconsistency, then entered in EpiData 3.1, and exported to SPSS 25.0 version for analysis. After cleaning the data, it was analyzed using the descriptive and inferential statistical tools. Chi squared test and multivariate logistic regression techniques were applied to test the statistical significance (P-value less than 0.05 was considered statistical significance).

Ethical Approval was taken from Ethical Review Board of Nepal Health Research Council (Ethical clearance reference number: 2027) and Institutional Review Committee of Institute of Medicine (Ethical clearance reference number: 222/076/077). Ethical principles as per guidelines were strictly followed.

RESULTS

A group of 86 women with fertility problem and another group of 91 women without fertility problem were taken in this study among which 71.4% of the respondents in fertile group were below the age 35 whereas in infertile group 75.6% were below this age (P-value =0.53). Similarly, ethnicity of the respondents was distributed with 37.4% and 30.2% Janajati in the fertile and infertile Groups (P-value =0.53). Regarding

the religion, the 86.8% in fertile and 89.5% in infertile group belongs to Hindu respectively (P-value =0.58). The distribution of respondents according to residential status reported, 41.8% of respondents in fertile group were living in their own house while 53.5% belongs to infertile group (P-value =0.12). Concerning educational status, it was found that 69.2% of the respondent are below the bachelor level in fertile group but in contrast, only 38.4% are below bachelor level in infertile group (P-value <0.01). While examining the occupational status, the distribution of economically active group with compare to home-maker group was found to be statistically significant with 68.1% homemaker in fertile group and 45.3% in infertile group (P-value <0.01). In response to the perceived stress about income, both groups have similar distribution with 63.7% and 67.4% in fertile and infertile groups (Table 1)

Table1: Socio-Demographic characteristics of the respondents

	Fertile Group n = 91 # (%)	Infertile Group n = 86 # (%)	P-value
Age group			
Less than 35	65 (71.4)	65 (75.6)	0.53
35 and above	26 (28.6)	21 (24.4)	
Ethnicity			
Janajati	34 (37.4)	26 (30.2)	0.32
Non-janajati	57 (62.6)	60 (69.8)	
Religion			
Hindu	79 (86.8)	77 (89.5)	0.58
Non-hindu	12 (13.2)	09 (10.5)	
Residential Status			
Own house	38 (41.8)	46 (53.5)	0.12
Rented house	53 (58.2)	40 (46.5)	
Education			
Below bachelor	63 (69.2)	33 (38.4)	<0.01
Bachelor and above	28 (30.8)	53 (61.6)	
Occupation			
Economically Active	29 (31.9)	47 (54.7)	<0.01
Home maker	62 (68.1)	39 (45.3)	
Perceived income stress			
Negligible or minimal stress	33 (36.3)	28 (32.6)	0.60
Mild or high stress	58 (63.7)	58 (67.4)	

The duration of marriage is categorized in less than 10 years and 10 years or above. Regarding this characteristic, a contrast outcome was seen with 56% of the respondents in fertile group have the marriage duration less than 10 years whereas this portion is 72.1% in infertile group ((P-value = 0.03). About

the question regarding previous history of abortion or miscarriage, the responses from both groups are almost similar with 34.1% and 33.7% of having history of abortion or miscarriage in fertile and infertile group respectively (P-value = 0.96). In response to the perceived support from the husband, 75.8% and 84.9% have reported adequate support from their husband in fertile and infertile group respectively (P-value = 0.13). While asking about the difficulties in the relationship between the couple, only minimal responses i.e. 13.2% and 12.3% reported the presence of difficulties in fertile and infertile group (P-value = 0.94) (Table 2).

Table2: Personal and health related characteristics of the respondents

	Fertile Group n = 91 # (%)	Infertile Group n = 86 # (%)	P-value
Duration of marriage			
Less than 10 years	51 (56.0)	62 (72.1)	0.03
10 years or above	40 (44.0)	24 (27.9)	
Previous history of abortion or miscarriage			
Having history of abortion or miscarriage	31 (34.1)	29 (33.7)	0.96
No history of abortion or miscarriage	60 (65.9)	57 (66.3)	
Perceived support from Husband			
Adequate support	69 (75.8)	73 (84.9)	0.13
No or minimal support	22 (24.2)	13 (15.1)	
Difficulties in relationship between couple			
Present	12 (13.2)	11 (12.8)	0.94
Not present	79 (86.8)	75 (87.2)	

This table shows the status of anxiety and depression among fertile and infertile group. The significance association were found with both anxiety and depression status between the fertile and infertile group. The distribution of no, mild, moderate and severe anxiety and depression were 52.7%, 24.2%, 17.6% and 5.5% respectively in fertile group and 30.2%, 23.3%, 14.0% and 32.6% in infertile group. Whereas the distribution of no, mild, moderate and severe depression were 64.8%, 29.7%, 4.4% and 1.1% in fertile group and 50.0%, 14.0%, 8.1% and 27.9% in infertile group respectively. The pattern showed with higher to lower distribution in the case of both anxiety and depression in fertile group whereas in infertile group the severe anxiety and depression seems remarkably high (Table 3).

Table 3: Status anxiety and depression among the respondents

	Anxiety			Depression		
	Fertile group	Infertile group	P-value	Fertile group	Infertile group	P-value
Not any	48 (52.7)	26 (30.2)	<0.01	59 (64.8)	43 (50.0)	<0.01
Mild	22 (24.2)	20 (23.3)		27 (29.7)	12 (14.0)	
Moderate	16 (17.6)	12 (14.0)		4 (4.4)	7 (8.1)	
Severe	5 (5.5)	28 (32.5)		1 (1.1)	24 (27.9)	

The association of socio-demographic characteristics and status of anxiety and depression is described. The parenthesis indicates the percentage distribution regarding presence of anxiety and depression with their respective totals for every group of the categories. Regarding anxiety, no significant association were found with age group, ethnicity, religion, residential status (P-value =0.04) and education. Only occupation (P-value <0.01) of the respondents and their perceived income stress were found to have significant association with anxiety. Similarly, age group, ethnicity, religion, residential status, education and perceived income stress showed no significant association with depression while occupational status (P-value <0.01) showed the significant relationship with depression (Table 4).

Table 4: Association of anxiety and depression with socio-demographic characteristics

	Anxiety Present	P-value	Depression Present	P-value
Age group	n = 103 # (%)		n = 75 # (%)	
Less than 35	74 (56.9)	0.57	53 (40.8)	0.47
35 and above	29 (61.7)		22 (46.8)	
Ethnicity				
Janajati	64 (54.7)	0.19	51 (43.6)	0.65
Non-janajati	39 (65.0)		24 (40.0)	
Religion				
Hindu	89 (57.1)	0.40	65 (41.7)	0.60
Non-hindu	14 (66.7)		10 (47.6)	
Residential Status				
Own house	50 (59.5)	0.73	41 (48.8)	0.10
Rented house	53 (57.0)		34 (36.6)	
Education				
Below bachelor	58 (60.4)	0.51	44 (45.8)	0.31
Bachelor and above	45 (55.6)		31 (38.3)	
Occupation				
Economically Active	54 (71.1)	<0.01	41 (53.9)	<0.01
Home maker	49 (48.5)		34 (33.7)	
Perceived income stress				
Negligible or minimal stress	29 (47.5)	0.04	26 (42.6)	0.96
Mild or high stress	74 (63.8)		49 (42.2)	

The prevalence of anxiety among fertile and infertile group is found to be 47.3% and 69.8%, and the prevalence of depression is 35.2% and 50.0% respectively. Factors such as fertility status, perceived support from husband, self-reported difficulties in relationship between couple have significant association both anxiety and depression whereas previous history of abortion or miscarriage seems significant relationship with depression. The factor duration of marriage showed no significant association with both anxiety and depression (Table 5).

Table 5: Association of anxiety and depression with personal and health related characteristics

	Anxiety Present	P-value	Depression Present	P-value
Fertility Status				
Fertile	43 (47.3)	<0.01	32 (35.2)	0.04
Infertile	60 (69.8)		43 (50.0)	
Duration of marriage				
Less than 10 years	67 (59.3)	0.69	52 (46.0)	0.19
10 years or above	36 (56.3)		23 (35.9)	
Previous history of abortion or miscarriage				
Having history of abortion or miscarriage	38 (63.3)	0.32	33 (55.0)	0.02
No history of abortion or miscarriage	65 (55.6)		42 (35.9)	
Perceived support from Husband				
Adequate support	77 (54.2)	0.03	55 (38.7)	0.04
No or minimal support	26 (74.3)		20 (57.1)	
Difficulties in relationship between couple				
Present	19 (82.6)	0.02	19 (82.6)	<0.01
Not present	84 (54.5)		56 (36.4)	

For multivariate logistic regression analysis, the variables with p-value upto 0.10 in bivariate analysis were included. The VIF for all the selected variables for multivariate analysis is found to be less than 2 and the Nagelkerke R square is found to be 0.207 for anxiety and 0.205 for depression. Occupation [AOR 0.407(0.203-0.817)], perceived income stress [AOR 2.124 (1.062-4.249)] and fertility status [AOR 2.463 (1.254 - 4.838)] were found to be statistically significant for anxiety whereas only self-reported difficulties in relationship between couple [AOR 7.220 (2.037 – 25.595)] was found to be statistically significant for depression (Table 6).

Table 6: Anxiety and depression with socio-demographic, personal and health related characteristics using multivariate logistic regression

Anxiety	COR	AOR	P-VALUE (AOR)
Occupation (reference category - Economically active)	0.384 (0.204 - 0.721)	0.407 (0.203- 0.817)	0.011
Perceived income stress (reference category - Negligible or minimal stress)	1.944 (1.036 - 3.647)	2.124 (1.062- 4.249)	.033
Fertility Status (reference category-Fertile)	2.576 (1.389 - 4.776)	2.463 (1.254 - 4.838)	0.009
Perceived support from Husband (reference category - No or minimal support)	0.410 (0.179 - 0.937)	0.423 (0.164 - 1.094)	0.076
Difficulties in relationship between couple (reference category - Not present)	3.958 (1.286 - 12.179)	2.446 (0.692 - 8.641)	0.165
Depression			
Occupation (reference category - Economically active)	0.433 (0.235 - 0.798)	0.545 (0.272 - 1.093)	0.087
Fertility Status (reference category-Fertile)	1.844 (1.009 - 3.370)	1.734 (0.878 - 3.425)	0.113
Previous history of abortion or miscarriage		1.885 (0.931 - 3.815)	0.078
Perceived support from Husband (reference category - No or minimal support)	0.474 (0.224 - 1.004)	0.769 (0.300 - 1.968)	0.584
Difficulties in relationship between couple (reference category - Not present)	8.313 (2.693 - 25.658)	7.220 (2.037 - 25.595)	0.002
Residential status (reference category - Own house)	0.604 (0.331 - 1.102)	0.584 (0.294 - 1.160)	0.125

DISCUSSION

This study assessed the prevalence of anxiety and depression among the fertile and infertile women of reproductive age group and associated factors related to them. The prevalence of anxiety and depression in this study is found to be 69.8% and 50.0% in infertile group, whereas the fertile group the figures are found to be 47.3% and 35.2%. A study by Benbella et al. revealed 55% of the women with infertility problem had depression and 45.6% had mild to severe anxiety. (14) Other studies reported similarly levels of depression in infertile women with a rate 68% in India and 62% in Ghana. (15,16) In a study conducted by Guerra et al., 67% of infertile women had anxiety. (17) A study assessing anxiety in infertile women found different levels of mental pressure in 83.8% of infertile women, in which moderate or severe types in 25%. (14) Similarly, study in Iran showed quiet higher level i.e. 86.8 % of anxiety among infertile women. (18) In this study, 23.1% fertile and 46.5% infertile women had anxiety. This shows the prevalence of anxiety and depression among infertile women is quite similar to the study from other countries.

The distribution socio-demographic and personal characteristics in this study among fertile and infertile women were found similar except the educational status, occupational status and duration of marriage. In this study no significant relationship were found regarding age, education level, religion, ethnicity and residential status with anxiety and depression. Ogawa M et al also reported no significant relationship between age with anxiety depression. (19) But in another study, age was reported negatively associated with anxiety while there was no significant relationship between depression. (20) A study reported a significance relationship with age, education and occupation with depression and anxiety. (21)

In this study, anxiety was found significantly associated with occupation but depression was not significant in multivariate analysis. A study by Facchinetti F et al. reported increased vulnerability of stress is associated with low income. (22)

The perceived support from Husband was found not significantly associated to anxiety and depression in this study. Similarly, in a study, men's perceived support did not seem to influence their partners' stress. (23) Hidehiko M et al. showed anxiety and depression in childless Japanese women were associated significantly with lack of husband's support and feeling stress which is consistent with our study. (24)

In this study, duration of marriage and previous history of abortion or miscarriage was found not significant with both anxiety and depression and similar finding had been reported in a study from Bangladesh. (25)

Though this study showed the significant association of occupation, perceived income stress and fertility with anxiety and difficulties in relationship between couple with depression, there are certain limitations of this study. Since the cross-sectional design was adopted, it is not sufficient to explain the casual relationship among the study variables. The status of anxiety and depression was measured by using Hospital Anxiety and Depression Scale, it may be differently correlate with the clinical findings for anxiety and depression.

CONCLUSION

Anxiety in relation to fertility was associated to occupation, perceived income stress and fertility status. Likewise, depression was associated with self-reported difficulties in relationship between couple among the reproductive aged women visiting in the hospital settings of Kathmandu. The prevalence of anxiety and depression regarding infertile women were 69.8% and 50.0%, and regarding fertile women were 47.3% and 35.2% respectively for the same settings. The findings will be valuable for enhancing the management of anxiety and depression among infertile women, with implications for both

Acknowledgement

The authors would like to appreciate and acknowledge the Hospital Administration, Department of Obstetrics and Gynecology of TUTH and Vatsalya Natural IVF center for supporting and granting permission to conduct the study.

Conflict of Interest

The authors declare no conflict of interest.

REFERENCES

1. Khanal P. Infertility: An Emerging Issue in Nepal. *Electron Res J Soc Sci Humanit.* 2019;1.
2. Hocaoglu C. The Psychosocial Aspect of Infertility. In: *Infertility, Assisted Reproductive Technologies and Hormone Assays* [Internet]. IntechOpen; 2018 [cited 2024 Jul 31].
3. Zegers-Hochschild F, Adamson GD, de Mouzon J, Ishihara O, Mansour R, Nygren K, et al. The International Committee for Monitoring Assisted Reproductive Technology (ICMART) and the World Health Organization (WHO) Revised Glossary on ART Terminology, 2009. *Hum Reprod.* 2009 Nov 1;24(11):2683–7.
4. Bista B. Lived Experience of Infertility among Community Dwelling Infertile Women. *J Nobel Med Coll.* 20 15 Sep 1;4(1):46–56.
5. Deka P, Sarma S. Psychological aspects of infertility | *British Journal of Medical Practitioners* [Internet]. [cited 2024 Aug 16].
6. Sengupta P. Challenge of infertility: How protective the yoga therapy is? *Anc Sci Life.* 2012;32(1):61–2.
7. Sharma C, Subedi D, Rai L, Upreti K. Stress and Coping Mechanism of Infertile Women Attending Infertility Clinic in Kathmandu. *J Univers Coll Med Sci.* 2014;2(4):24–8.
8. Jordan C, Revenson TA. Gender Differences in Coping with Infertility: A Meta-Analysis. *J Behav Med.* 1999 Aug 1;22(4):341–58.
9. Lakatos E, Szigeti JF, Ujma PP, Sexty R, Balog P. Anxiety and depression among infertile women: a cross-sectional survey from Hungary. *BMC Womens Health.* 2017 Jul 24;17(1):48.
10. Greil AL. Infertility and psychological distress: A critical review of the literature. *Soc Sci Med.* 1997 Dec 1;45(11):1679–704.
11. Fido A. Emotional distress in infertile women in Kuwait. *Int J Fertil Womens Med.* 2004 Feb;49(1):24–8.
12. Garg DN, Suthar DN, Goyal DM, Khuteta DRP. Depression Among Infertile And Fertile women At A Tertiary Centre- A Comparative Study. *IOSR J Dent Med Sci.* 16(5):125–30.
13. Zigmond AS, Snaith RP. The Hospital Anxiety and Depression Scale. *Acta Psychiatr Scand.* 1983;67(6):361–70.
14. Benbella A, Ktiri F, Kasouati J, Siham A, Hardizi H, Zaidouni A, et al. Depression and Anxiety Among Infertile Moroccan Women: A Cross-Sectional Study in the Reproductive Health Center in Rabat. *J Depress Anxiety.* 2018 Jan 1;07.
15. Verma K, Baniya GC. A comparative study of depression among infertile and fertile women. *Int J Res Med Sci.* 2016;4(8):3459–65.
16. Alhassan A, Ziblim AR, Muntaka S. A survey on depression among infertile women in Ghana. *BMC Womens Health.* 2014 Mar 10;14(1):42.
17. Guerra D, Llobera A, Veiga A, Barri PN. Psychiatric morbidity in couples attending a fertility service. *Hum Reprod Oxf Engl.* 1998 Jun;13(6):1733–6.
18. Ramezanzadeh F, Aghssa MM, Abedinia N, Zayeri F, Khanafshar N, Shariat M, et al. A survey of relationship between anxiety, depression and duration of infertility. *BMC Womens Health.* 2004 Nov 6;4(1):9.
19. Ogawa M, Takamatsu K, Horiguchi F. Evaluation of factors associated with the anxiety and depression of female infertility patients. *Biopsychosoc Med.* 2011 Dec 23;5(1):15.
20. Maroufizadeh S, Karimi E, Vesali S, Omani Samani R. Anxiety and depression after failure of assisted reproductive treatment among patients experiencing infertility. *Int J Gynecol Obstet.* 2015 Sep 1;130(3):253–6.
21. Verma P, Rastogi R, Sachdeva S, Gandhi R, Kapoor R, Sachdeva S. Psychiatric Morbidity in Infertility Patients in a Tertiary Care Setup. *J Clin Diagn Res JCDR.* 2015 Sep;9(9):VC01–6.
22. Facchinetti F, Volpe A, Matteo ML, Genazzani AR, Artini GP. An increased vulnerability to stress is associated with a poor outcome of in vitro fertilization-embryo transfer treatment. *Fertil Steril.* 1997 Feb 1;67(2):309–14.
23. Martins MV, Peterson BD, Almeida V, Mesquita-Guimarães J, Costa ME. Dyadic dynamics of perceived social support in couples facing infertility. *Hum Reprod.* 2013 Nov;29(1):83–9.
24. Matsubayashi H, Hosaka T, Izumi S ichiro, Suzuki T, Kondo A, Makino T. Increased depression and anxiety in infertile Japanese women resulting from lack of husband's support and feelings of stress. *Gen Hosp Psychiatry.* 2004 Sep 1;26(5):398–404.
25. Hasan ABMN, Sharif AB, Jahan I, Begum MR. Mental health status and the quality of life of infertile women receiving fertility treatment in Bangladesh: A cross-sectional study. *PLOS Glob Public Health.* 2023;3(12):e0002680.