

Psychosocial conditions in patients with vesicovaginal fistula at a referral hospital in Surabaya, Indonesia

Eighty Mardiyani Kurniawati, Faqihatus Rahmah, Gatut Hardianto, Hari Paraton, Tri Hastono Setyo Hadi

Introduction

Vesicovaginal fistula (VVF) is an abnormal opening between the bladder and vagina that causes persistent urinary incontinence. Estimates suggest that at least three million women in poor countries have unrepaired VVF (Stamatikos *et al.*, 2014). The true incidence of VVF is difficult to predict because affected women do not seek self-examination due to social stigma. The reported incidence and etiology of VVF differ between developing and developed countries. The most common cause of VVF in developed countries is hip surgery. The incidence varies between 0.3%

and 2.0%. Less common causes are radiation-induced and advanced pelvic malignancies such as tumors of the bladder, rectum, and cervix and their treatment. In developing countries, prolonged obstructed labor is the most common cause (>90%), especially in Sub-Saharan African countries (Pizzol *et al.*, 2021). The incidence of vesicovaginal fistulas in developing countries is one to two per 1000 deliveries, with an annual incidence of 50,000-100,000 cases, whereas untreated fistula cases are 500,000-2,000,000 (Hilton, 2003).

The standard therapy for vesicovaginal fistula is surgery, with a 70-100% success rate in non-radiation cases. Fistula recurrence can occur within 3 months after the first operation (Yuh, 2016). In addition to difficult treatment, complications from fistulas consist of physical suffering and social impact. This happens to women with low socioeconomic groups. This disease is one of the most troublesome complications of gynecological and obstetric procedures. Although the incidence of VVF is rare in industrialized countries, it is still common in developing countries. This disease causes morbidity and interferes with quality of life. Constant wetness, smell and discomfort lead to serious social problems (Rajaian, Pragateeswarane and Panda, 2019).

Vesicovaginal fistula does not only have a physical impact, but also a psychological impact. In addition to the difficulties of waiting for the treatment process, depression is common, often accompanying relapses. Research in developed countries confirms the effect of post-hysterectomy VVF improvement on the mental health of iatrogenic VVF patients. Retrospective data on 31

Eighty Mardiyani Kurniawati. PhD, specialist in obstetrics and gynecology, urogynecology consultant. Department of Obstetrics and Gynecology, Faculty of Medicine, Universitas Airlangga, Surabaya, Indonesia
Email: eighty-m-k@fk.unair.ac.id

Faqihatus Rahmah. Specialist in obstetrics and gynecology. Department of Obstetrics and Gynecology, Faculty of Medicine, Universitas Airlangga, Surabaya, Indonesia

Gatut Hardianto. Specialist in obstetrics and gynecology, urogynecology consultant. Department of Obstetrics and Gynecology, Faculty of Medicine, Universitas Airlangga, Surabaya, Indonesia

Hari Paraton. Specialist in obstetrics and gynecology, urogynecology consultant. Department of Obstetrics and Gynecology, Faculty of Medicine, Universitas Airlangga, Surabaya, Indonesia

Tri Hastono Setyo Hadi. Setyo Hadi Specialist in obstetrics and gynecology. Department of Obstetrics and Gynecology, Faculty of Medicine, Universitas Airlangga, Surabaya, Indonesia

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patients who underwent VVF repair after hysterectomy was reviewed. Results: a Of the 31 patients, 13 (41.9%) underwent hysterectomy due to malignancy. The prevalence of clinical anxiety and depression decreased from 51.6% to 16.1% ($P < 0.01$) and from 51.6% to 12.9% ($P < 0.01$), respectively, after VVF improvement, and urine leakage through the fistula was not observed in every patient after VVF repair. Iatrogenic VVF can have a severe impact on a patient's mental health, but VVF repair can significantly improve it (Fujisaki *et al.*, 2020). In developing countries, attention to this situation has not been taken seriously. Awareness needs to be increased regarding fistula prevention and the involvement of the gynecological community must be secured in this respect.

Fistulas need to be prevented before they occur. In addition, it is necessary to anticipate the occurrence of recurrent fistulas, which exacerbates the psychological situation of women. This study aims to describe the psychosocial state of vesicovaginal

fistula patients at Dr. Soetomo Hospital in Surabaya, Indonesia. This research can help prevent depression in patients and provide an overview for doctors to prevent fistulas in the future.

Method

This research is a cross sectional study with descriptive analysis. The population in this study consisted of vesicovaginal fistula patients who attended the Dr. Soetomo General Academic Hospital during 2017. The psychosocial condition is measured by measuring depression, using the Beck Depression Index (BDI). Based on medical record data from 2017, a total of 20 patients' records were obtained. The patients were then contacted by the researcher for a telephone interview. Data was successfully collected on 14 patients. The data obtained was then analysed descriptively. This research carried out an ethical test with number 2043/104/3/III/2023 from KEPK RSUD Dr. Soetomo..

Table 1. Characteristics of vesicovaginal fistula patients and depression status

Variable	Category	Amount	Percentage
Age	18-25	1	5%
	26-35	1	5%
	36-45	2	10%
	46-55	13	65%
	56-65	3	15%
Education	Elementary school	2	14%
	Junior High School	2	14%
	Senior High School	10	71%
Ethnicity	Java	11	79%
	Madura	3	21%
Job status	Work	1	7%
	Does not work	13	93%
Case type	Reference	6	43%
	Surgical patient at Dr. Soetomo Hospital	6	43%
	Not operating	2	14%
Depressed status	Depression	6	43%
	Not depressed	8	57%
Depression Levels	The ups and downs of feelings are classified as "reasonable"	8	57%
	Mild depression	4	29%
	Moderate depression	2	14%
Etiology	Obstetric surgery	2	10%
	Gynecological surgery	15	75%
	Non operative (malignancy)	3	15%

Results

More than half of the respondents were aged 46-55 years. Most respondent had finished senior high school education. Most respondent were ethnic Javanese and did not work. Nearly half of the respondents experienced depression. Only 2 patients did not undergo surgery. Nearly half of the respondents were referral patients. There were 2 patients with moderate depression. Most of the causes of fistulas experienced were gynaecological operations. Based on the results of the interviews, it was found that the most common complaints were sleep disturbances, weight loss, decreased appetite, and decreased interest in sexual activity. Table 1 shows the characteristics of the vesicovaginal fistula and the patient's depression status

Discussion

The results showed that some patients with vesicovaginal fistula experienced depression. Prevention of fistulas should be prioritized for healthy women. In addition, prevention of recurrent fistulas can also help the patient's psychological situation. Health education is specific to improving women's lifestyle, education, and nutrition. In addition, doctors need to improve their surgical skills to avoid causing fistulas, especially during the female reproductive process. Community-based prevention programs for depression and anxiety in women are having promising and positive results. Cognitive behavioral therapy and exercise are the easiest, yet most effective, interventions to implement (Maleki *et al.*, 2020). Collaborative treatment is evidence-based intervention for depression that can help with successful treatment transitions because patients switch from hospitalization to outpatient arrangements (Edwards, G. *et al.*, 2019). In addition to the management of collaboration, it is necessary to understand that the main complications of fistula management are recurrence and stress/encouragement. Prevention must include universal education, improve women's social status and nutrition, prevent early marriage, and secure the provision of accessible health services (Malik *et al.*, 2018).

In this study, there were two patients who experienced moderate depression. Patients may convey the physical problems they face related to fistulas compared to the sense of depression experienced. A systematic review determined predisposing factors that affect a person who experiences major depression to seek health assistance. The factors examined include predisposition (age (n = 17), sex (n = 16), ethnicity (n = 9), education (n = 11), marital status (n = 12)), allowance (income (n = 12)), Needs (severity (n = 14), duration (n = 9), number of episodes of depression (n = 6), psychiatric comorbidity (n = 10)) and contextual factors (area (n = 8)). Socio-demographic factors and needs seem to affect help seeking behavior (Magaard *et al.*, 2017). In a population study in Ontario Canada, less than half of those who answered sought help from a mental health professional, from only 19.8% in Chinese groups to 50.8% in white groups (Chiu *et al.*, 2018). Epidemiological research conducted by Katon 2011 found that depression can worsen the course of medical disorders due to its influence on proinflammatory factors, the hypothalamic-hipophysis axis, the autonomic nervous system, and metabolic factors, in addition to being associated with a higher risk of obesity, sedentary lifestyle, smoking, and poor compliance with medical management (Katon W. J., 2011). Depressive symptoms are associated with a higher risk of hospitalisation, a longer length of stay and a higher re-admission risk (Prina, A. M. *et al.*, 2015). The most common patient complaints were sleep disturbances, weight loss, decreased appetite, and decreased interest in sexual activity. This is consistent with previous research which shows that vesicovaginal fistulas have a considerable impact on sufferers, especially social relationships, leading to divorce, disturbed intimate relationships, and depression (Adler, A.J., Ronsmans, C., Calvert, C. & Filippi, 2013).

More than half of respondents were aged 46-55 years. Other research has found that the majority (84%) of vesicovaginal cases at a referral fistula repair center in Lilongwe, Malawi, occurred among women < 50 years of age, leading to VVF being considered a proxy for being premenopausal

(Bengtson *et al.*, 2016). Other research in Nigeria studied 314 Patients with VVF within the age range of 12 to 60 years, with a mean age of 29 years (SD 6.19) (Mikah, S. *et al.*, 2011). Most respondents had finished senior high school education.

Research conducted by Patria (2022) found that educational achievements have a longitudinal effect on depression. A higher level of education will reduce the risk of depression in the future, and expanding policies related to educational opportunities can help in preventing the emergence of depression (Patria, 2022). This can apply to cases of chronic diseases faced in the future. Someone with educational achievements will tend to experience depression less than those who lack education. Nevertheless, both sex and race/ethnicity do not interact with the achievement of education (AK *et al.*, 2020). Most respondent were ethnic Javanese and did not work. A population study in Ontario, Canada, found that mood disorders and anxiety were reported to be lower in certain races. This study found that reported disorders were generally lower among South Asian, Chinese, and black respondents, compared to white respondents (Chiu *et al.*, 2018).

Conclusion

Patients with vesicovaginal fistulas may be depressed. Prevention of fistulas should be prioritized for healthy women. Besides that, prevention of recurrent fistulas can also help the patient's psychological situation. Health workers need to conduct health education, especially related to improving women's lifestyle, education, and nutrition, as well as improve surgical skills to avoid causes of fistulas.

References

Adler, A.J., Ronsmans, C., Calvert, C. & Filippi, V. (2013) 'Estimating the prevalence of obstetric fistula: a systematic review and meta-analysis.', *BMC Pregnancy and Childbirth*, 13(246).

AK, C. *et al.* (2020) 'Association of Adult Depression With Educational Attainment, Aspirations, and Expectations.', *Prev Chronic Dis*, 17, p. E94.

Bengtson, A. M. *et al.* (2016) 'Identifying Patients With Vesicovaginal Fistula at High Risk of Urinary Incontinence After Surgery.', *Obstetrics and gynecology*, 128(5), pp. 945–953.

Chiu, M. *et al.* (2018) 'Ethnic Differences in Mental Health Status and Service Utilization: A Population-Based Study in Ontario, Canada', *The Canadian Journal of Psychiatry*, 63(7), pp. 481–491. doi: 10.1177/0706743717741061.

Edwards, G. *et al.* (2019) 'Improving Depression Management in Patients with Medical Illness Using Collaborative Care: Linking Treatment from the Inpatient to the Outpatient Setting.', *Innovations in clinical neuroscience*, 16(11–12), pp. 19–24.

Fujisaki, A. *et al.* (2020) 'An evaluation of the impact of post-hysterectomy vesicovaginal fistula repair on the mental health of patients in a developed country', *International Urogynecology Journal*, 31(7), pp. 1371–1375. doi: 10.1007/s00192-019-04131-4.

Hilton, P. (2003) 'Vesico-vaginal fistulas in developing countries', *Int J Gynaecol Obstet*, 82, pp. 285–95.

Katon W. J. (2011) 'Epidemiology and treatment of depression in patients with chronic medical illness', *Dialogues in clinical neuroscience*, 13(1), pp. 7–23.

Magaard, J. L. *et al.* (2017) 'Factors associated with help-seeking behaviour among individuals with major depression: A systematic review', *PLOS ONE*, 12(5), p. e0176730. Available at: <https://doi.org/10.1371/journal.pone.0176730>.

Maleki, F. M. *et al.* (2020) 'Community-Based Preventive Interventions for Depression and Anxiety in Women.', *Arch Iran Med*, 23(3), pp. 197–206.

Malik, M. A. *et al.* (2018) 'Changing trends in the etiology and management of vesicovaginal fistula', *International Journal of Urology*, 25(1), pp. 25–29. doi: 10.1111/iju.13419.

Mikah, S. *et al.* (2011) 'The burden of vesico-vaginal fistula in north central Nigeria.', *Journal of the West African College of Surgeons*, 1(2), pp. 50–62.

Patria, B. (2022) 'The longitudinal effects of education on depression: Finding from the Indonesian national survey', *Frontiers in Public Health*. Available at: <https://www.frontiersin.org/articles/10.3389/fpubh.2022.1017995>.

Pizzol, D. *et al.* (2021) 'Urinary incontinence and quality of life: a systematic review and meta-analysis', *Aging Clinical and Experimental Research*, 33(1), pp. 25–35. doi: 10.1007/s40520-020-01712-y.

Prina, A. M. *et al.* (2015) 'The association between depressive symptoms in the community, non-psychiatric

hospital admission and hospital outcomes: a systematic review.’, *Journal of psychosomatic research*, 78(1), 25–33, 78(1), pp. 25–33.

Rajaian, S., Pragatheeswarane, M. and Panda, A. (2019) ‘Vesicovaginal fistula: Review and recent trends’, *Indian journal of urology: IJU: journal of the Urological Society of India*, 35(4), pp. 250–258. doi:

10.4103/iju.IJU_147_19.

Stamatakos, M. *et al.* (2014) ‘Vesicovaginal fistula: Diagnosis and management’, *Indian J Surg*, 76(2), pp. 131–136.

Yuh, L. . & R. J. G. (2016) ‘Complication and long term sequelae of bladder fistula repair.’, *Curr Bladder Dysfunct Rep*, 11(4), pp. 317–24.

