



RESEARCH ARTICLE

VAGINAL DISCHARGE: WOMEN'S HEALTH SEEKING BEHAVIOURS AND CULTURAL PRACTICES

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ABSTRACT

Early detection of pathological vaginal discharge is important to prevent complications of underlying diseases which can severely compromise women's health, fertility and survival. A review of the published literature was performed to describe health seeking behaviours and cultural practices related to vaginal discharge among women in reproductive age group. This review involved searching databases using the search terms such as vaginal symptoms/ discharge, reproductive disorders, health seeking, self-management. Twenty six original articles which included in to the study were regarding reproductive tract infections involving women aged 15 to 49 years and published in English between 1990 and 2014. The most commonly reported reproductive tract symptom was vaginal discharge. Majority of women consider stress, body weakness, poor personal hygiene, body heat, eating hot foods and bad luck as causes for vaginal discharge. Women's lack of knowledge regarding the causes leads to inability in differentiating normality of vaginal discharge. Many women expressed that embarrassment, anxiety and shame related to disclosing vaginal discharge leads to use of variety of home remedies. Women's lack of knowledge on the pathological vaginal discharge and use of different cultural practices make them delay in seeking medical advice for pathological vaginal discharge. Culture specific health education programmes and strategies need to be designed to provide effective health care towards prevention of consequences of untreated pathological vaginal discharge.

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INTRODUCTION

Vulvo-Vaginal symptoms include vaginal discharge, pruritis and painful vulval conditions (vulvodynia). Physiological vaginal secretion is biologically normal (Bro, 1993) and occurs due to high oestrogen levels in peri-ovulatory phase of menstrual cycle, pregnancy and due to sexual arousal. It can be influenced by diet, hormone levels (Anderson et al., 2004) and poor personal hygiene, poor nutrition and overwork (Trollope-Kumar, 2001). Changes in the vaginal environment and abnormal condition of the surface layers of cervicalepithelium facilitate the penetration of viruses into cells (Musakhodjaeva et al., 2014), leading to changes in the quantity, colour and odour of vaginal secretions. Furthermore genital area should be kept clean but excessive cleaning (use of disinfectants, perfumes) can disturb the vaginal flora leading to colonisation of pathogens which could lead to infections (Onal et al., 2011).

Vaginal discharge is probably the most common complaint among women in reproductive age (Trollope-Kumar, 2001; Rizvi et al., 2004) but from that many women have little clinical evidence of infection and it is usually a normal physiological discharge, or mildly increased discharge associated with overgrowth of naturally occurring vaginal organisms (Trollope-Kumar, 2001). Therefore identifying whether the vaginal discharge is physiological or pathological is the primary task (Al Quaiz, 2000). Most importantly, vaginal discharge can be due to pathological causes such as genital tract malignancy, fistulae, allergic reactions, atrophic vaginitis (menopausal) and reproductive tract infections. "The presence of vaginal discharge can be very alarming for a woman, particularly if she is concerned that she might catch a serious Sexually Transmitted Infection (STI)" (Campbell et al., 2000). Therefore vaginal discharge can be used as a risk marker for early identification of STI cases (Rizvi et al., 2004). Delayed treatment for these infections can cause serious effects such as infertility, ectopic pregnancy, cervical cancer and infant death (WHO, 2006). Further, patients with cervical cancer often complain of a profuse, offensive vaginal discharge, which may be bloodstained (Campbell et al., 2000). Furthermore, vaginal

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discharge can be presented in uterine cancer and fallopian tube cancer. Primary fallopian tube carcinoma can be detected in early stage if detected the symptoms such as watery vaginal discharge and vaginal bleeding (Hornig *et al.*, 2014). Therefore, it is pertinent to differentiate physiological discharge from a pathological vaginal discharge in order to prevent complications of untreated reproductive tract infections and for early detection of reproductive malignancies.

According to World Health Organization (WHO), early detection of cervical cancer has failed due to lack of priority for women's sexual and reproductive health, lack of awareness of cervical cancer as a health problem, attitudes, misconceptions and beliefs that inhibit people discussing diseases of the genital tract (WHO, 2006). Most of the studies conducted in Asia show that women suffer from reproductive morbidities for a long time because of the prevailing "culture of silence" (Mamta *et al.*, 2014). Health seeking behaviours for vaginal discharge was poor because of the cultural inhibitions as well as shame towards consulting male doctors in some communities (IshaqBhatti *et al.*, 2002). In some South-East Asian cultures, women are not allowed to use their right for safe sexual practices and even women without multiple partners get STIs from their husbands (Rizvi *et al.*, 2004). They do not report and remain neglected and untreated which subsequently leads to major health problems (Rizvi *et al.*, 2004). The objective of this study was to review published articles to describe health seeking behaviours and cultural practices related to vaginal discharge among women living worldwide as it is timely important to prevent most of the reproductive morbidities.

## MATERIALS AND MATHEDS

A review of the published literature on health seeking behaviours among women related to vaginal discharge was performed using online databases such as MEDLINE, EBSCOhost, PsycInfo and Google Scholar. The articles were selected through titles and abstracts by the first author of this paper in May- June 2014. The terms used included the following; vaginal symptoms/ discharges, reproductive disorders, health seeking, self-management of vaginal symptoms. The results of the search were completed by tracking references from studies already included. The search was limited to articles published in English and original research manuscripts. Study designs selected for review were descriptive cross sectional, qualitative studies and reviews.

- Study population: women of age 15- 49 years of ages. Participants could consists of a mixed group of reproductive tract infections, genital malignancies, menopausal symptoms.
- Case definition: Studies had to state a clear case definition for vaginal discharges or the articles which have vaginal discharge as first, second or thirdly most prevalent symptom.

Twenty six eligible studies were selected based on inclusion and exclusion criteria. They were from Denmark, Egypt, Bareilly, Peru, Punjab, Finland, Nigeria, USA, England, Pakistan, India, Nepal, Istanbul and Viet Nam.

## Quality Assessment

Due to the heterogeneity of the included studies, the studies are not sufficiently comparable to each other. Therefore, the assessment of the methodological quality of each study seemed inappropriate to us.

## Data Extraction

Data extraction of the articles was compiled and the available titles and abstracts identified in the different database searches, as well as the selected articles.

## RESULTS AND DISCUSSION

### Vaginal discharge as a symptom of reproductive disorders and women's experiences

Women use different terms for vaginal discharge which they pick up from different health care providers as well as from their communities (Binh *et al.*, 2002; IshaqBhatti *et al.*, 2002; Rizvi *et al.*, 2004). Further women beliefs that vaginal discharge should continue for more than 2-3 months and contain pus or blood, foul smell and or associated with systemic symptoms to consider it as abnormal (Binh *et al.*, 2002; IshaqBhatti *et al.*, 2002; Rizvi *et al.*, 2004). Identification of vaginal discharge as a suspected symptom associated with the reproductive tract infections was poor among women (Al Quai, 2000; Onal *et al.*, 2011; Nielsen *et al.*, 2014) and treatment seeking was also poor among the reproductive age group (Prusty *et al.*, 2013).

Hence, majority of women with symptoms related to reproductive tract infections were positive for reproductive infections but were not taking medical treatments (Balamurugan *et al.*, 2012). Women can experience vaginal discharge differently by expressing feelings such as anxious, agitated, distressed, miserable, uncomfortable, embarrassed while they have vaginal symptoms and this leads to mood swings and inability to concentrate (Chapple *et al.*, 2000). Further there is a lot of stigma attached to vaginal symptoms and women still seems to blame themselves for their condition, feel a sense of shame and spoiled identity, feel dirty and find it difficult to attend activities such as religious prayers (Chapple, 2001). Further women are embarrassed by the urge to scratch and frequently changing underwear (Binh *et al.*, 2002; O'dowd *et al.*, 1996). Furthermore women find it difficult to cope with vaginal discharge (Bro, 1993; O'dowd *et al.*, 1996), complain on lower abdominal pain, backache and weakness related to vaginal discharge, which affected their general sense of well-being (IshaqBhatti *et al.*, 2002).

### Reported causes for vaginal discharges

Women perceive that their vaginal discharges were due to stress related to family constraints and financial situations (Bro, 1993; Chapple *et al.*, 2000; Kostick *et al.*, 2010; Gul *et al.*, 2013) and substance use by partner (Kostick *et al.*, 2010). In some studies women explained vaginal discharges as "a consequence of consuming specific categories of foods (chicken, red meat)", "due to a weakness (after having

children), water from the bone starts to flow and that is discharge", worms in stool, using cloth for menses, having wounds inside vagina, and bad luck as reasons behind it (Trollope-Kumar, 2001; IshaqBhatti *et al.*, 2002; Chapple *et al.*, 2000). Further women explained the causes for abnormal vaginal discharge as weakness of the body in general and genital organs in particular (Bro, 1993; Rizvi *et al.*, 2004). Another common belief is that bad personal hygiene is a cause for vaginal discharge (Trollope-Kumar, 2001; IshaqBhatti *et al.*, 2002; Nielsen *et al.*, 2014; Chapple *et al.*, 2000; Gul *et al.*, 2013). Furthermore, some studies found that using antibiotics, contraceptive pills, washing powder or products used in the bath, overheating or tight trousers and sterilization operation or sexually transmitted disease as causes (Chapple *et al.*, 2000; Chapple *et al.*, 2001). In another study majority believed their vaginal symptoms to be sexually transmissible (O'dowd *et al.*, 1996).

people's reaction towards it (Chapple, 2001; Kostick *et al.*, 2010). Majority of women visit health care providers alone to get treatment for vaginal discharge compared to being accompanied by someone (IshaqBhatti *et al.*, 2002). Similarly disclosing symptoms associated with reproductive health matters is a stigma for most cultures. With regards to symptoms of reproductive tract infection, many studies indicates that women communicate differently even with their spouse (Rizvi *et al.*, 2004; Prusty *et al.*, 2013; O'dowd *et al.*, 1996; Sabarwal *et al.*, 2012). Some researchers explain that if women experience physical or sexual violence at the hands of their husband, they are reluctant to talk about vaginal discharge (Sabarwal *et al.*, 2012). Most of the time women reveal their symptoms to a doctor without discussing with anyone else and few others discussed with another family member or a friend (O'dowd *et al.*, 1996).

**Table 1. Home remedies used by women for vaginal discharge**

Authors	Home remedies used
Binh <i>et al.</i> , 2002.	Guava liquid and 'hygienic washes' at home
Nielsen <i>et al.</i> , 2014.	Cleaning with saltwater, or/and cleaning with betel leaves or/and cleaning with Rose powder
Rizvi & Luby, 2004.	Mustard, or coconut oil alone or in turmeric powder, burn ointments and eczema and antiseptic powders, crèmes, and a special food made up of flour, butter and dry fruits
IshaqBhatti & Fikree, 2002.	Refraining from consuming beef, rice, and badi cheese in (flatulent foods), eat bananas and take milk on top of that before sleeping eating coconut
Chapple <i>et al.</i> , 2000.	Avoid wearing tight trousers, hot baths and perfumed soaps or bubble bath, buying over-the-counter medicines, wash perineal area more frequently, use salt baths, the jelly from the stalk of an aloe vera plant for soothing, use natural yoghurt, follow a diet that restricted the use of sugar, coffee, mushrooms and other foods
O'dowd <i>et al.</i> , 1996.	Antifungal and antiseptic creams, deodorant sprays, yoghurt, and herbal remedies.
Chapple, 2001.	Natural yogurt, hot bath with Dettol, avoid hot foods, avoid tea and coffee

Some Ayurvedic practitioners explain the reasons for vaginal discharge as excess humoral heat in the body (Trollope-Kumar, 2001). Further there are some other reported causes such as poverty, anorexia nervosa and frequent pregnancies, lifting heavy weight (Gul *et al.*, 2013), infection, contraceptive use, hormonal changes (Bro, 1993), induced abortions and tubal ligations (IshaqBhatti *et al.*, 2002).

#### Women's knowledge about vaginal discharge

Women's knowledge regarding causes for vaginal discharge and their complications are poor (Rabiu *et al.*, 2010). Majority of women identify thrush as a reproductive tract infection, but very few identify Chlamydia, Trichomonas and Bacterial vaginosis (O'dowd *et al.*, 1996; Singh *et al.*, 2012). Further women described vaginal discharge as a disease which is common but distinct from STIs (Rizvi *et al.*, 2004). In some studies, women can't recognize vaginal discharge as a problem and they named it as sweating, bone water, white water (Gul *et al.*, 2013). Further women believed that vaginal discharge is transmitted by direct contact with infected articles e.g. clothes, food and furniture (Rizvi *et al.*, 2004). Similarly women identified mode of transmission of reproductive infections as using same toilet, sexual intercourse and poor hygiene (Rabiu *et al.*, 2010). Improving knowledge regarding vaginal discharge and possible causes is important to improve health seeking behaviours.

#### Women's decisions on disclosing vaginal discharge

Researchers explain disclosing vaginal discharge as a difficult situation for many women due to many of them being afraid of

But in some studies have found that women generally discussed their signs and symptoms with husbands or mothers-in-law (IshaqBhatti *et al.*, 2002). In others, it has been found that women's first level of help-seeking advice comes from friends and neighbours while they work (Binh *et al.*, 2002). Reporting reproductive issues are still stigmatized in many communities and this has to be changed with necessary education.

#### Treatment seeking behaviors for vaginal discharge (Table 2)

Women on average, go for three to four healthcare providers, mainly family practitioners, gynecologists and traditional birth attendants to get treatment (IshaqBhatti *et al.*, 2002). Further in some studies, health seeking behaviours are poor for reproductive tract infections (Garg *et al.*, 2001). Some studies have found that majority of subjects have satisfactory health seeking behavior (Mamta *et al.*, 2014; Singh *et al.*, 2012). These include stake treatment from doctors (O'dowd *et al.*, 1996; Rabiu *et al.*, 2010; Thekdi *et al.*, 2013; Akl *et al.*, 2011). Before reaching hospital, many women seek advice and get treatment from other methods as traditional healers (Rizvi *et al.*, 2004), other health care providers (nurses, chemist shop) and self treatments or faith healers, homeopathic treatment and ayurvedic (Kaur *et al.*, 2013; Garcia *et al.*, 2004). But those with no previous experience of symptoms is less likely to consult a pharmacist than a doctor (O'dowd *et al.*, 1996). Some women do not seek any medical advice (Garcia *et al.*, 2004; Thekdi *et al.*, 2013) and follow home remedies such as herbal medicine (Balamurugan *et al.*, 2012; Gul *et al.*, 2013).

**Table 2. Health seeking behaviours among women towards vaginal discharge**

Authors	Country	Study population	Common symptoms	Health Seeking behaviours
Binh <i>et al.</i> , 2002.	Viet Nam	230 women aged 15±49 years	Vaginal discharge	Use home remedies, women only consulting a health care provider if symptoms persist or worsen.
Nielsen <i>et al.</i> , 2014.	Viet Nam	1805 women aged 15 to 49	Abnormal vaginal discharge (73%) and genital itching (40%)	(31%) sought healthcare, (27%) self-medicated and (42%) women ignored their symptoms (in the sense that they took no action)
Onal <i>et al.</i> , 2011.	Istanbul	117. 15-49 aged women	Discharge- 77.8%. Odour- 52.1%, Pruritis- 44.4%	-
Rizvi & Luby, 2004	Nepal	five focus group discussions with women, interview- 333 newly registered gynecology outpatients	Vaginal discharge	Do not seek treatment unless it interferes with daily routine work, the reason being shame and fear. Prefer traditional healers or pharmacist
Kostick <i>et al.</i> , 2010.	Mumbai, India	260 women interviewed and qualitative in-depth interviews with a sample of 66 women regarding gynecological health	Vaginal discharge	Allopathic and nonallopathic remedies are accessible over-the-counter without a doctor's prescription,
IshaqBhatti and Fikree. 2002.	Pakistan	18 interviews with women having RTIs	Vaginal discharge	Follow allopathic or their traditional healers, spiritual healers
Thekdi <i>et al.</i> , 2013.	India	400 married women of reproductive age group	Vaginal discharge (26.3%) Vulval itching (8.8%)	symptomatic women, 61.94% of women had taken treatment and majority of them had taken treatment from doctors
Chapple <i>et al.</i> , 2000.	England	209 women presented with symptoms thought to be associated with thrush.	Vaginal thrush	Some women did not want to bother their doctor with symptoms that they felt they could deal with themselves on that occasion.
Theroux, 2002.	USA	11 women who had experienced vaginal symptoms	Vaginal symptoms	Self-treatments and non-medical treatments
O'dowd <i>et al.</i> , 1996.	East Midlands, England.	Patients aged 18-48 years who had presented with vaginal symptoms within the previous 90 days	Itchiness being the most common and discharge next commonest.	Those with no previous experience of symptoms were less likely to consult a pharmacist.
Rabiu <i>et al.</i> , 2010.	Lagos, Nigeria	487 new patients attended in gynaecological and family planning out-patient clinics	Vaginal discharge (21.8%) vulval itching (17.7%),	Majority seek medical care
Gulet <i>et al.</i> , 2013.	Pakistan	200 women aged category 14 to 40years	Vaginal discharge	Do not take treatment or not concern about it by majority
Sihvo <i>et al.</i> , 1999.	Finland	299 women	Vulvovaginal itching and vaginal discharge	Using Over the counter products
Chapple, 2001.	England	20 Muslim women with south Asian descent	Vaginal thrush	Delaying seeking medical advice due to, embarrassment for internal examination, fear of STDs
Kaur <i>et al.</i> , 2013.	Punjab	200 married women, in the age group of 15-44 years	Vaginal discharge	Use allopathic as well as ayurvedic, home remedies and homeopathic treatments, Consult faith healers
Garcia <i>et al.</i> , 2004.	Peru <sup>3</sup>	enrolling 754 women	Vaginal discharge and vulval itching	Majority had self-medication and some of them had visit public clinic, private physician, traditional healers or pharmacists
Mamta and Kaur, 2014.	India	Women within reproductive age group (15-49 years)	Vaginal discharge	Majority had satisfactory health seeking behaviours
Bhanderi and Kannan, 2010.	India	1,046 15-49-year-old, ever married women	Vaginal discharge	Sought treatments from health facilities but did not continue complete, Those who did not take treatments- " due to treatment is not necessary", financial constraints, lack of time' were the reasons
Balamurugan and Bendigeri, 2012.	India	women under 15 – 45 years in urban community	-	Majority preferred home remedies, followed by sought treatment from health workers, nurse etc. who visited their homes.
Singh <i>et al.</i> , 2012.	Bareilly	ever married women in the age group of 15-45 years	Abnormal vaginal discharge (9.43%)	women sought institutional health care facilities for their problems and the government health care facilities were the most common place for treatment
Prusty and Unisa, 2013.	India	ever married women aged 15-19	Vaginal discharge (11%), Low backache (8 %), dyspareunia (5%),	adolescent married women preferred private hospitals/ clinics due to privacy, better quality of care, as well as lack of special treatment division for RTIs in government hospitals
Akl <i>et al.</i> , 2011.	Egypt	340 ever-married women in the reproductive age group of 15 to 49 years	most commonly reported gynecological problems were symptoms of lower RTIs	the majority had sought the services of the public sector facility (80.1%), had sought treatment from an unqualified provider or relied on over-the-counter medications or home remedies

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Authors	Country	Study population	Common symptoms	Health Seeking behaviours
Bro, 1993.	Denmark	323 women who visited a General Practitioner (GP) because of vaginal discharge and 805 women without complaints of vaginal discharge	Vaginal discharge	48% had tried self-treatment and 58% had increased genital washings. 26% had asked relatives or friends for advice and 35% had read about it. 3% had changed their dietary habits as a reaction to the symptoms.
Garg <i>et al.</i> , 2001.	India	A total of 231 married women (15-45 years)	Low backache (51.1%), pain during menstruation (41.1%), vaginal discharge (31.6%)	27.8% consulted a health facility for treatment
Go <i>et al.</i> , 2002.	Viet Nam	Women aged 18 years to 49 years	Vaginal discharge (78.3%), Lower abdominal pain 46.7%	A commune health station (24.7%), hospital (15.8%), pharmacy (15.2%), or private doctor's office (8.1%). The remaining women ignored symptoms (24.8%) or self-treated (11.4%).

Further many women ignore vaginal discharge due to lack of pain or perceived severity and among those who self-treated, their treatment is based on their perceived cause of symptoms (Go *et al.*, 2002). Even women who seek treatment once were found not to seek treatment again due to lack of time (Go *et al.*, 2002). In some studies found that many women reuse the previous prescriptions (Binh *et al.*, 2002; Chapple *et al.*, 2000). Shame and fear of publicizing that they have a sexual illness (Rizvi *et al.*, 2004), unfriendly and lack of privacy in biomedical institutions (Rizvi *et al.*, 2004), embarrassment and fear of internal examinations (Chapple *et al.*, 2001), fear of having contracted an STI (Chapple *et al.*, 2001), considering these symptoms as normal and due to unaffordability of treatment (Kaur *et al.*, 2013) were some reasons for not to seek medical advice. Furthermore some consider that treatment is not necessary due to "it is the destiny to have it" and "fear of side effects from medicines", lack of time, long distances from health facilities, feeling that home remedies were sufficient, no autonomy, poor quality of care, and no privacy in care (Bhandari *et al.*, 2010).

Many women do not seek medical advice for vaginal symptoms due to difficulty in getting a doctor's appointment, past experience with the General Practitioners (GPs), high level of dissatisfaction with the quality of care (Chapple *et al.*, 2000). In some studies women's age, education and earlier diagnosis of Candida or STIs had no effect on women's reporting of symptoms requiring a physician's evaluation (Sihvo *et al.*, 2000). Further availability of over the counter products leads to self-management of vaginal discharge (Sihvo *et al.*, 2000). Health seeking behaviour of women has been found to be satisfactory in families having a higher income (Mamta *et al.*, 2014; Prusty *et al.*, 2013; Sabarwal *et al.*, 2012). But some studies have found that money was not a reason for not seeking health advice and selecting a particular provider for treatment of illness (IshaqBhatti *et al.*, 2002). Years of schooling and age were positively associated with treatment-seeking among women (Prusty *et al.*, 2013; Sabarwal *et al.*, 2012). Perception of a high degree of threat from the disease, a previous good experience from medical treatment, and an external specific locus of control in relation to vaginal discharge also are strongly related to shorter duration of symptoms before seeking medical advice (Bro, 1993).

Socioeconomic conditions, cast, distance from health facilities, and duration of illnesses were significant factors for untreated reproductive morbidities in some studies (Rani *et al.*, 2003).

Further religion, cast, and awareness about STIs are significant determinants of care seeking behavior (Prusty *et al.*, 2013). In some studies socio-demographic variables such as age, education, occupation, marital status, religion, and parity had no significant association with health seeking behaviours (Mamta *et al.*, 2014). In some studies revealed that women's confidence on the advices from friends and family (Binh *et al.*, 2002). Women's preferences for traditional healers or pharmacist due to confidentiality and privacy were reasons for not to seek advices from allopathic doctors (Rizvi *et al.*, 2004). Further selection of the health care provider depend on reputation of the provider and distance of the health facility (Rizvi *et al.*, 2004), the cost of treatment (Rizvi *et al.*, 2004; Mamta *et al.*, 2014; Theroux, 2002) recommendations from friends, relatives or social contacts who had been successfully treated for vaginal discharge (IshaqBhatti *et al.*, 2002)

#### Self-management of vaginal discharge (Table 1)

Studies have found many different self-care practices towards vaginal discharge including avoidance of wearing tight trousers, hot baths and perfumed soaps or bubble bath, buying over-the-counter medicines, washing perineal area more frequently, use of salt baths, using jelly from the stalk of an aloe vera plant for soothing, use of natural yoghurt, following a diet with restricted sugar, coffee, mushrooms and other foods (Chapple *et al.*, 2000; Chapple *et al.*, 2001) using hot bath with Dettol, eating fewer hot foods (chicken, pickles), avoiding tea and coffee (Chapple *et al.*, 2001). Other common ways of self-medication included cleaning with saltwater, and /or cleaning with betel leaves and /or cleaning with rose powder (Nielsen *et al.*, 2014). Women use the liquid form leaves, usually guava and betel (Binh *et al.*, 2002) to relieve the symptoms of discharge and itchiness. Eating raw white rice or refraining from eating "heaty" foods (Trollope-Kumar, 2001; Kostick *et al.*, 2010) drink milk regularly, eat bananas or eat coconuts (IshaqBhatti *et al.*, 2002), white zeera, coconut water and milk with butter (Gul *et al.*, 2013) were home remedies used for vaginal discharge in some communities. Other home remedies found are mustard, or coconut oil alone or in turmeric powder, burn ointments and eczema and antiseptic powders and crèmes (Rizvi *et al.*, 2004). Further, this study found that some use a special food made up of flour, butter and dry fruits. Similarly O'dowd *et al.* (1996) found that the choice of remedies included antifungal and antiseptic creams, yoghurt, and herbal remedies for management of vaginal symptoms (O'dowd *et al.*, 1996).

### Recommendations for improving health seeking behaviours towards vaginal discharges

Culture specific health education messages and strategies need to be designed to meet the local information needs (Rizvi *et al.*, 2004). Primary health care providers can play a major role in health education for women in reproductive age group with relation to physiological and pathological vaginal discharge, how to differentiate physiological and pathological vaginal discharge and educate them on when to seek medical advice. This can be integrated to reproductive health care programmes such as family planning, maternal and child health services which will lead to early detection of pathological vaginal discharge (Rabiou *et al.*, 2010). Providing patient respect, privacy and confidentiality (Rizvi *et al.*, 2004) using telephone consults, providing easy appointments and accessible to facilities at convenient times, and designing comfortable and confidential care environments (Theroux, 2002) will be useful to improve health seeking behaviors towards vaginal discharges.

### Conclusion

Majority of the studies reviewed in this article have found that women in reproductive age group are not seeking health advice for their vaginal discharge and consider it as a normal condition due to many cultural factors. Further their knowledge on causes of vaginal discharge is poor and their ability to differentiate physiological vaginal discharge from pathological is poor. Due to different home remedies and cultural practices there is a delay in seeking proper treatment for pathological vaginal discharge leading to serious consequences. Most of them have the feelings of shame, guilt and they are embarrassed to express that they have a vaginal discharge even to their intimate partners. It is important to educate women regarding the importance of early detection of pathological vaginal discharge in order to prevent serious complications and to promote women health.

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