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✓ **PUBLIC HEALTH MIDWIVES' KNOWLEDGE, ATTITUDES AND PERCEIVED LEVEL OF COMPETENCY IN EDUCATING WOMEN REGARDING VAGINAL DISCHARGE**

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**INTRODUCTION**

Vaginal discharge is a common female health concern in South Asia (Khan, 2009; Trollope-Kumar, 2001). It may be a symptom of reproductive tract infections, genital tract malignancies and other reproductive tract disorders. Reproductive tract infections include Chlamydia Trachomatis infection, Gonorrhoea and Trichomoniasis which are Sexually Transmitted Infections (STIs), and Bacterial Vaginosis (BV) and Candidiasis which are nonSTIs. The prevalence of reproductive tract infections has an increasing trend with the low socioeconomic class being affected most (Balamurugan and Bendigeri, 2012).

Pruritus, vaginal discharge and vulvovaginal soreness were significantly higher in women with trichomoniasis infection in women attending a central sexually transmitted diseases clinic in Sri Lanka (Fernando *et al.*, 2012). Furthermore patients with vaginal discharge has been found to be a common presentation in Ayurveda gynaecology clinics in a Teaching Hospital, Sri Lanka and most of them were found to have normal physiological discharge (Karunagoda, 2011). Further Bates (2003) expressed the need of assessing for the possibility of a genital tract malignancy in women presenting with a persistent bloodstained discharge to differentiate cervical, uterine, vaginal and ovarian malignancies as they all have been reported in association with vaginal discharge.

Women are anxious to get treatment for gynaecological problems and they are bound and restricted by their cultural milieu (Ross *et al.*, 2002). Availability, accessibility, acceptability, confidentiality and even lack of publicity of available services were the main barriers for using reproductive health services in Sri Lanka (Agampodi *et al.*, 2008). The Public Health Midwife (PHM) is the key family health worker at the grass root level in the Sri Lankan Health Care System and they provide services especially in Maternal and Child Health in Sri Lanka. Today the service of PHMs has evolved into a career taking a holistic approach in preventive health (Karunathilake and Silva, 2010) and they provide referral information to the community where necessary for any illness (Arulkumaran, 2011). As the PHM is the available and closest health care worker to the community, women can disclose their health problems such as vaginal discharge to the PHM.

Therefore, it is a timely need to assess public health care workers' competency in health education in relation to common women's health issues as they are the most available and the closest members of the health care team to the Sri Lankan community. The main purpose of this descriptive study was to describe the PHMs' existing level of knowledge and attitudes towards vaginal discharge and their perceived level of competency in educating women regarding normal and abnormal vaginal discharge and unhealthy practices in relation to vaginal discharge. This will help to plan an educational programme for PHMs in order to improve their knowledge, attitudes and skills related to health education on this common gynaecological complaint.

**METHODOLOGY**

A descriptive cross sectional study was carried out in a municipal council area in Colombo

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District, Sri Lanka. All PHMs who have worked at least 6 months during the last 12-months period in Colombo District were selected. Data were collected over a period of five months (January - May 2015) using a self-developed, validated, pretested self-administered questionnaire. The questionnaire consisted of demographic characteristics, questions related to knowledge and attitudes among Public Health Midwives' in relation to vaginal discharge and their competencies in health education in respect of hygienic practices and changing behaviours among females aged 18 to 49 years. To assess the level of knowledge, each correct answer was given a score of 1 and incorrect response 0. Knowledge levels were specified as follows; Adequate knowledge - >75% Moderate knowledge between 50%- 75% and Inadequate knowledge <50%.

Ethical clearance was obtained from the Ethics Review Committee of the Faculty of Medical Sciences, University of Sri Jayewardenepura. Permission to undertake this study in the Colombo district was obtained from Regional Directorate of Health Services, Colombo and Chief Medical Officer of the relevant Municipal Council Area. Data collection was carried out after obtaining informed written consent of the participants. Data were analyzed using Statistical Package for Social Sciences (SPSS) software version 16 and descriptive statistics were applied to obtain percentages and means and then relevant inferential statistics.

## RESULTS AND DISCUSSION

**Table 1.** Demographic data

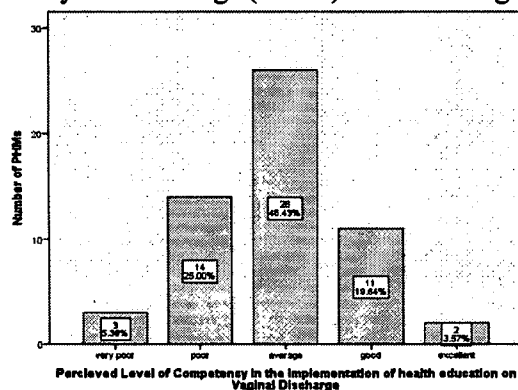
Variable		Frequency (n)	Percentage (%)
Age	Less than 30years	21	37.5
	31-40years	18	32.1
	More than 41years	17	30.4
	Mean age	36.57years (SD±10.10)	
Duration of working as a PHM	Less than 5years	25	44.6
	6-10years	13	23.1
	More than 11years	18	32.1
	Mean duration of working as a PHM	9.05years (SD± 9.07).	
Common topics used for health education	Family Planning	48	85.7
	Pregnancy	46	82.1
	Early childhood development	42	75
	Immunization	30	53.6
	Newborn care	30	53.6
	Breastfeeding	28	50
	Well-women clinic	25	44.6
	Other disease conditions and their consequences	19	33.9
Knowledge levels	Personal Hygiene	08	14.3
	Adequate knowledge (>75%)	1	1.8
	Moderate level of knowledge (50-75%)	29	51.8
	Inadequate knowledge (<50)	26	46.4
Mean knowledge score		53.7 (SD±12.36).	

A total of 56 PHMs participated in the study with a response rate of 82%. Mean age of the study participants was 36.57 years (SD± 10.10). A majority of the participants were more than 30 years old (62.5%, n=35) and have worked as a PHM for less than 10 years (67.7%, n=38). Mean years of working as a PHM was 9.05 (SD± 9.07) (Table 1).

All the participants agreed that a clear, non-offensive discharge that varies with the menstrual cycle is a normal physiological secretion (100%). Participants responded to other knowledge questions by agreeing that vaginal secretions vary with menstrual cycle (50, 89.3%), the most common cause of vaginal discharge is sexually transmitted infection (16, 28.6%), women aged between 15-49 years have a normal physiological vaginal secretion (52, 92.9%), white or colored vaginal discharge which may be a sign of reproductive tract infections (42, 75%) and Candida infection is a sexually transmitted infection (34 (60.7%).

Total knowledge score for each participant was calculated by summing up the scores for correct answers. Mean knowledge score among the study participants was 53.7 (SD  $\pm$  12.36). One participant had an adequate level of knowledge on vaginal discharge and 51.8% (n=29) had moderate level of knowledge. Forty six percent of the study participants (N=26) had inadequate knowledge on vaginal discharge which indicated that nearly half of the study sample had an inadequate level of knowledge (Table 1). There was no significant association between duration of working (p=0.329), level of education (p=0.584) and age (p=0.311) with the mean knowledge score within the study sample. The attitude towards health education on vaginal discharge was positive among the study participants. Majority (96.4%, n=54) indicated that health education on vaginal discharge is important. All participants agreed that they are interested in getting their knowledge about vaginal discharge and reproductive tract infections updated. Further they all agreed that it is one of their primary responsibilities to educate females on vaginal discharge in their PHM areas.

Nearly thirty percentage of participants (n=17) agreed that they have received training on "Health Education" during the last five years. They have received training on health education on following topics: 3.6% (n=2) on "nutrition", 1.8% (n=1) on "HIV education", 5.4% (n=3) on "family planning", 1.8% (n=1) on "breast feeding", and 12.5% (n=7) on "Non Communicable Diseases". But no one has received any training or in-service programmes related to reproductive tract morbidities after their basic training other than HIV education. Similarly, almost all Community Health care workers had previous training during their basic health training at schools (AbdulRahman, et al., 2015) than the post placement. Fourteen participants rated their competency in health education on vaginal discharge as poor (25%), twenty six as average (46.4%) and eleven as good (19.6%) (Figure 1).



**Figure 1.** Perceived level of competency in the implementation of health education on vaginal discharge

n=39) and "I am confident with my ability to teach about vaginal secretion" (64%, n=36) indicating positive attitudes. In the present study, majority (73.2%, n=41) of the study participants agreed that health education helps to promote health seeking behaviors among patients.

Importantly participants were of the opinion that excessive vaginal discharge can occur due to body heat (73.2%, n=41) and body weakness (55%, n=31). Further 57% (n=32) consider that weight loss can occur due to vaginal discharge. These findings express the beliefs among PHMs regarding causes for vaginal discharge. Thus by addressing health needs of the public regarding the topic, their lack of proper knowledge could result in the wrong diagnosis and treatment, unnecessary additional treatments, unnecessary or late referrals (if at all) and compromise of final outcome as had been found in a study conducted in northern Nigeria (AbdulRahman et al., 2015).

## CONCLUSIONS/ RECOMMENDATIONS

In conclusion, a majority of PHMs displayed moderate level of knowledge regarding vaginal

A majority of the participants (75%, n=42) agreed that vaginal discharge is a normal condition and it is necessary to take treatment for offensive vaginal discharge (100%, n=56). Furthermore, majority disagreed with the statements "those who have excessive vaginal secretion are not healthy" (68%, n=38), "those who have excessive vaginal secretion don't have good personal hygiene" (80%, n=45) and "I find it uncomfortable to talk about vaginal discharge" (80%, n=45) indicating positive attitudes towards caring for women with vaginal discharge. Majority of the participants agreed that "any type of vaginal discharge should be taken seriously" (69.6%,

discharge which is not sufficient for providing proper health education and referral activities at community level. Areas of weakness include recognition of abnormal vaginal discharge and common reasons for vaginal discharge suggesting more of theoretical knowledge. Majority of participants had been working for less than 10 years and have a significant number of years of service before retirement. If given additional training on health education and common gynaecological complaints they will be able to render better services for many more years.

Refresher courses on common gynaecological complaints and how to differentiate normality may be useful in improving their knowledge and skills. Further incorporating teaching methods and communication skills in to the PHM's training will help the community as health education is one of their major responsibilities.

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