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Knowledge Level of Cervical Cancer Screening and Screening Methods among Women Aged 21-50 Years in Meru South District, Tharaka Nithi County, Kenya

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Abstract

The cervical cancer ranks as the first cause of female cancer and the first most common female cancer in women. It is also the first leading cause of cancer deaths in women aged 15 to 44 years in Kenya. Despite the introduction of cervical cancer screening and control programmes in Kenya, the burden of cervical cancer is still high. This study therefore sought to determine the knowledge level of cervical cancer screening and screening methods among women aged 21-50 years in Meru South District, Tharaka Nithi County, Kenya. A cross-sectional descriptive study composing of 40 women aged between 20 and 50 years was carried out. An interview guide was used to collect data which was transcribed to Microsoft Excel 2017 Software. The findings indicated that awareness of cervical cancer as a disease was overwhelmingly high at 90%. As well, 75% of the women knew that it is quite possible to prevent development of the debilitating cervical cancer. However, specific content knowledge of cervical cancer and screening, which is critical, was annoyingly low despite the tremendous efforts of cervical cancer awareness creation. To mention but a few, only 10 women (25%) were able to identify true risk factors of cervical cancer with only 5% (2) identifying two precise risk factors. Only 30% were able to highlight a Pap smear and HPV test as tests for cervical cancer. The cause of cervical cancer (human papilloma virus) was only identified by 17.5% (7) of the respondents. The study concluded that mere awareness of existence of cervical cancer did not translate to higher uptake rate. Many women in Tharaka Nithi County have no specific knowledge about cervical cancer. Therefore, a lot has to be done to counter the hindrances to utilization of screening services. There is need to enhance the health education with regards to cervical cancer and cervical cancer screening. More should be done on informing the public/general women population through social platforms, barazas, media, etc., about cervical cancer cause, mode of transmission, prevention, risk factors, treatment modalities and possible complications. This action will promote one's decision to go for screening since she is fully informed.

Keywords: *Knowledge level, cervical cancer screening, screening methods*

1.0 Introduction

Globally, an estimated 19.3 million new cancer cases and almost 10.0 million cancer deaths occurred in 2020 (Sung, et al., 2021). The cervix is among the most common sites of cancer in women. In 2018, an estimated 570 000 new cases of cervical cancer and 311 000 cervical cancer related deaths occurred worldwide (Arbyn, et al., 2020). Cancer of the cervix refers to exceedingly and persistent outgrowth of cervical tissue. It's caused by Human Papillomavirus infection (Boardman, 2016). The most common finding in cervical cancer patients is an abnormal Pap test result, accompanied with physical symptoms such as, abnormal vaginal bleeding, vaginal discomfort, malodorous vaginal discharge and dysuria (Boardman, 2016).

In Africa, cervical cancer is the second most common female cancer with 99038 new cases and 60098 deaths in 2012 (Bruni et al., 2016). However, cervical cancer ranks fourth in Northern Africa. In Sub-Saharan Africa, 34.8 new cases of cervical cancer per 100000 women are diagnosed annually and 22.5 per 100000 women die from the disease. This is explained by a lack of access to effective screening and treatment preventive services (WHO, 2015). Invasive cervical cancer incidence and mortality in Sub-Saharan Africa are among the highest in the world. Of the ten most affected countries globally with highest incidence of cervical cancer are; Malawi (75.9), Mozambique 65, Comoros 61, Zambia 58, Zimbabwe 56, Tanzania 54, Swaziland 53 and Burundi 49.3, age standardised rates per 100000. As well, they are among the top ten most globally affected by mortality from cervical cancer. As per the African regions; Northern Africa has the lowest incidence of cervical cancer of 6.6/100000 as Eastern Africa record the highest incidence of 42.7 followed by Middle Africa and Western Africa (Africa Health & Social Development Information Service & Africa Coalition on Maternal New-born & Child Health, 2014).

Cervical cancer ranks as the first cause of female cancer incidents in Kenya with about 5250 new cases diagnosed annually (ICO/IARC HPV Information Centre, 2018). Age standardized rate of incidence being 40.1 per 100000 women. About 3286 cervical cancer deaths occur annually in Kenya and cervical cancer is the first cause of female cancer deaths in Kenya (ICO/IARC HPV Information Centre, 2018). A trend likely due to poor utilization of cervical cancer screening services since many cases of cervical cancer are diagnosed in late stages in women who mostly have never been screened (NCCP Plan, 2012). An estimate of about only 3.2% of women in Kenya aged 18 -69 years have been screened. Although this cancer is prevented and controlled through behaviour change, vaccination of girls and boys, screening, and early detection and treatment of precancerous lesions, most of the eligible women of reproductive health in Kenya have never been screened. Thus, the need to increase awareness of cervical cancer and its screening, as well as, improving women's perception of cervical cancer; to decrease morbidity and mortality from cervical cancer in developing countries, in which Kenya falls.

1.1 Statement of the Problem

A population of 13.5 million Kenyan women aged 15 years and older are at risk of developing cervical cancer (HPV Information Centre, 2015). The incidence of cervical cancer in Kenya stands at about 5250 new cervical cancer cases annually(ICO/IARC HPV Information Centre, 2018), with cervical cancer ranking as the first cause of female cancer and the first most common female cancer in women aged 15 to 44 years in Kenya (HPV Information Centre, 2015; Bruni et al., 2015). Mortality from cervical cancer is about 3286 deaths annually (ICO/IARC HPV Information Centre, 2018). Cervical cancer being the first leading cause of cancer deaths in women aged 15 to 44 years in Kenya (HPV Information Centre, 2015; Bruni et al., 2015). With HPV-16 and 18 that cause 70% of invasive cervical cancer prevalence being at 9.1% of women in the general population; there is an increased

risk for women developing cervical cancer. Hence, a call for increased uptake of cervical cancer screening majorly by conventional cytology [Pap smear] and VIA/VILI tests to decrease incidence and mortality and morbidity from cervical cancer in Kenyan women. Despite the introduction of cervical cancer screening and control programmes in Kenya, the burden of cervical cancer is still high. This study therefore sought to determine the knowledge level of cervical cancer screening and screening methods among women aged 21-50 years in Meru South District, Tharaka Nithi County, Kenya.

1.2 Purpose of the Study

To determine the knowledge level of cervical cancer screening and screening methods among women aged 21-50 years in Meru South District, Tharaka Nithi County, Kenya.

2.0 Empirical Review

2.1 Methods of screening cervical cancer

According to the WHO and the American Cancer Society, the available screening methods include cytology {Pap test}, visual inspection with acetic acid and HPV testing for high risk HPV types {HPV DNA test} (American Cancer Society, 2014; WHO, 2016). In low resource countries such as Africa and India, attention is being given to a much less expensive method of screening using vinegar (Visual Inspection with Acetic Acid), which has the potential of lowering mortality from cervical cancer by 31% (Roxanne, 2013). In Kenya, visual screening is available in all county referral hospitals, some sub-county hospitals, a few health centres and some faith-based facilities. Pap smear is the most commonly used method but limited to the urban areas (NCCP Plan, 2012).

2.2 Level of awareness of cervical cancer and uptake of its screening services

In a study on a rural population in India by Aswathy et al. (2012); 72% of the respondents were aware of cervical cancer as a type of cancer affecting women, but only 47% could name the Pap test as a screening method of cervical cancer. Of the 809 women, only 6.9% had ever done the Pap test. Kumar and Tanya (2014) observed that most of the women had poor knowledge about cervical cancer and its screening. Only 7.2% of the study participants had undergone screening.

A study on a sample of Gabonese women revealed a poor level of knowledge about cervical cancer, Pap smear testing and HPV, yet 91.6% had heard about cancer of the cervix. Only 8.8% of the participants had heard of HPV. However, 65% of the women had gone for Pap smear testing (Assoumou et al., 2015). In Bayu et al. (2016), 19.8% of the 1186 age eligible women had been screened for cervical cancer. A bigger portion of them (85%) had at least heard of cervical cancer and its screening. In a Nigerian study by Idowu et al. (2016), 67% of the respondents had heard about cervical cancer but this did not translate to good knowledge as 92% of them demonstrated poor knowledge on cancer of the cervix. Only 8% (27) had ever been screened. In yet another Nigerian study, participant's knowledge of cervical cancer, its preventability and screening were all below 40% and the uptake of cervical cancer dismally low at 0.6% (Eze et al., 2012). A Ghanaian study on knowledge, practice and barriers towards cervical cancer screening revealed that majority of the women lacked knowledge about cervical cancer, Pap smear test, risk factors, treatment and prevention strategies. 68% had never heard about cervical cancer while 96% had no knowledge on risk factors. Only 3 women (0.8%) had been tested for cervical cancer (Ebu et al., 2015). Urasa and Darj (2011), in their study found out that most of the nurses had insufficient knowledge on transmission of HPV, causes, risks, symptoms, treatments and prevention of cervical cancer. Correct identification of HPV infection as a cause was below 40% and 84% had never had a Pap smear examination.

Coverage of cervical cancer screening in Kenya, in all women aged 18-69 years is estimated at 3.2%. This reflects a low level of utilization of cervical cancer screening despite the high magnitude of cervical cancer. In a study conducted in Kasarani, Nairobi, 87% of the respondents had heard about cervical cancer. 75% of the respondents {288} had knowledge of the Pap smear test. Among all respondents only 41% had utilized the Pap smear test (Ombechi et al., 2012). Knowledge level about the signs and symptoms of cervical cancer is a significant determinant for taking up screening services (Morema et al., 2014). Those who have no or little knowledge about cervical cancer have a higher likelihood of not utilizing screening services. In this study, only 17.5% were screened (Morema et al., 2014). The study demonstrated a low uptake for cervical cancer screening as well as a low level of knowledge on cervical cancer regarding its signs and symptoms, most at risk groups and prevention measures {63.2% no knowledge, 2.1% adequate knowledge}. A similar pattern is observed in other studies such as (Owoeye & Ibrahim, 2013; Nwozor & Oragudosi, 2013; Wong et al., 2009).

These findings observe that just a few have specific knowledge regarding cervical cancer. In most of the reviewed studies, being aware of or having heard about cervical did not translate to content knowledge about the disease and this contributed to the poor coverage of cervical cancer screening. As seen, majority of those who took up the test were among the knowledgeable lot.

3.0 Methodology

A cross-sectional descriptive study composing of 40 women aged between 20 and 50 years was carried out. This study used convenience sampling. Readily available women were involved throughout the data collection period as study participants. An interview guide was used to collect data which was transcribed to Microsoft Excel 2017 software. Results were presented by bar charts, pie charts and in statements. Anonymity and confidentiality of study participants was guaranteed.

4.0 Results and Discussion

4.1 Knowledge/awareness of cervical cancer and screening service

Knowledge and awareness status of respondents concerning cervical cancer & cervical cancer screening was assessed using a set of six questions. The women were asked whether they had ever heard of cervical cancer, whether cervical cancer screening services were available at the healthy facility they sought care. Besides, they were asked to state if cervical cancer is preventable, to state cervical cancer cause, list cervical cancer risk factors and identify a cervical cancer test.

Ninety percent (36) of the women had ever heard of cervical cancer. Only 10% (4) had never heard of cervical cancer. 55% (22) of the women reported that screening services were available at the health facility they sought care whereas 45% (18) of them reported that there were no screening services at the health facility. Only 17.5% (7) of the respondents gave a true cervical cancer cause (i.e., human papilloma virus). Other cervical cancer cause responses were bacteria (27.5%), too much sex (10%) and HIV (7.5%). 37.5% (15) of the respondents stated that they did not know the cause of cervical cancer.

With regards to knowledge of cervical cancer risk factors, responses were grouped on a scale of 1-4 where 1(3 correct points), 2 (2 correct points), 3(1 correct point) and 4(no correct point/ I don't know). 75% of the study respondents did not know and gave no correct risk factor for cervical cancer. 20% (8 women) listed one correct risk factor with only 5% (2) listing two correct risk factors. Of those who identified true risk factors, 87.5% (7) mentioned having multiple sex partners as a risk factor. None was able to identify 3 right risk factors.

Seventy percent (30) of the women believed or knew that cervical cancer is preventable. A small proportion (10%) knew that cervical cancer was not preventable. Cervical cancer test awareness was as follows; HPV test & Pap smear (30%), urine test (7.5%), x-ray (2.5%) and blood test (2.5%). 23 (57.5%) women stated that they did not know the cervical screening tests. The subsequent figures display a summary of knowledge of cervical cancer and cervical cancer screening.

Ever heard of cervical cancer

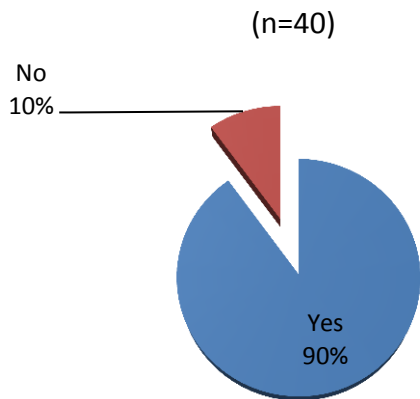


Figure 1: Number of women who ever heard of cervical cancer.

Cervical cancer causes (n=40)

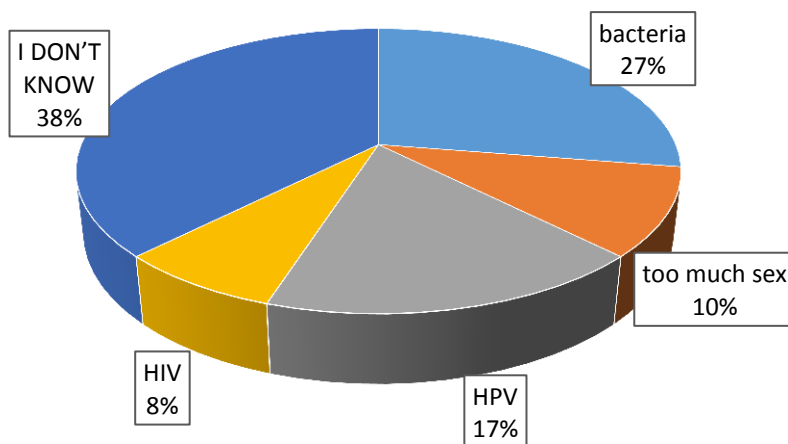


Figure 2: Cervical cancer cause responses

Risk factors correctly identified

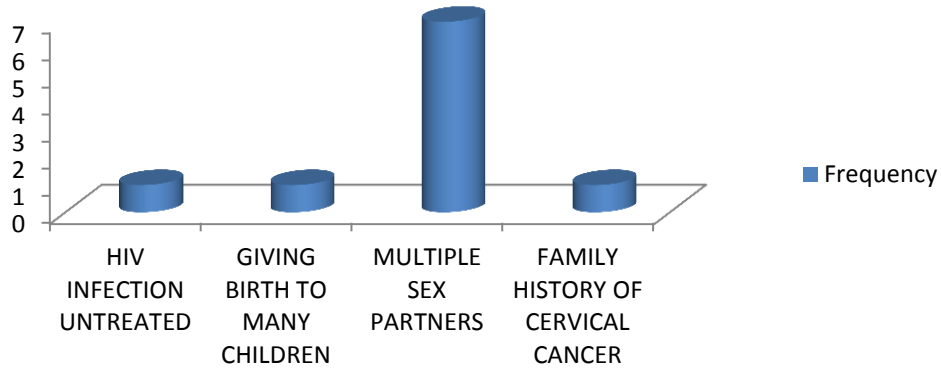


Figure 3: Cervical cancer risk factors identification

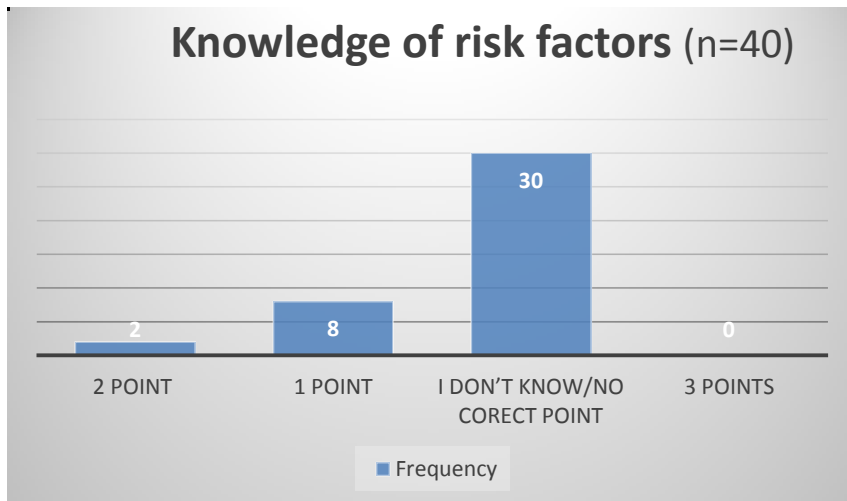


Figure 4: Knowledge level of respondents about cervical cancer risk factors

Cervical cancer test awareness N=40

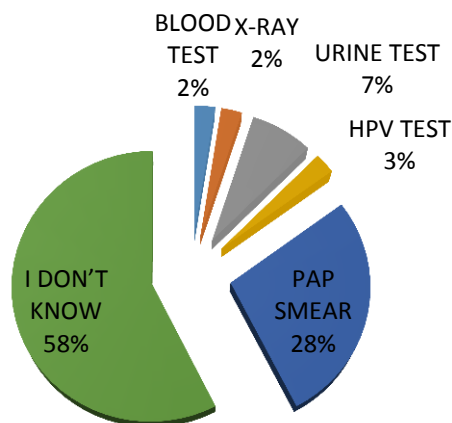


Figure 5: Awareness of cervical cancer tests

4.2 Discussion of Findings

Awareness of cervical cancer as a disease was overwhelmingly high at 90%. As well, 75% of the women knew that it's quite possible to prevent development of the debilitating cervical cancer. However, specific content knowledge of cervical cancer and screening, which is critical, was annoyingly low despite the tremendous efforts of cervical cancer awareness creation. To mention but a few, only 10 women (25%) were able to identify true risk factors of cervical cancer with only 5% (2) identifying two precise risk factors. This level of precise knowledge of cervical cancer is higher than that recorded in Morema et al. (2014) - only 2.1% had demonstrated adequate cervical cancer knowledge.

Only 30% were able to highlight a Pap smear and HPV test as tests for cervical cancer. The cause of cervical cancer (human papilloma virus) was only identified by 17.5% (7) of the respondents. Ombechi et al. (2012) compared to this study, showed a higher knowledge level of pap smear test at 75% which was worthy congratulating. In Urasa and Darj (2011), Eze et al. (2012), Assoumou et al. (2015) and Bayu et al. (2016), content knowledge on cervical cancer, its prevention, risk factors and screening was reported to be lower than 40% just like in this study. Besides, all the studies showed a remarkably good level of awareness of cervical cancer as a disease.

5.0 Conclusion

The study aimed to determine the knowledge level of cervical cancer screening and screening methods among women aged 21-50 years in Meru south district, Tharaka Nithi County, Kenya. From the results, the study concluded that mere awareness of existence of cervical cancer did not translate to higher uptake rate. Many women in Tharaka Nithi County have no specific knowledge about cervical cancer. Therefore, a lot has to be done to counter the hindrances to utilization of screening services.

6.0 Recommendations

There is need to enhance the health education with regards to cervical cancer and cervical cancer screening. More should be done on informing the public/general women population through social platforms, barazas, media, etc., about cervical cancer cause, mode of transmission, prevention, risk factors, treatment modalities and possible complications. This action will promote one's decision to go for screening since she is fully informed.

7.0 References

- American Cancer Society. (2014). Cervical Cancer Prevention and Early Detection. Retrieved from www.cancer.org.
- Arbyn, M., Weiderpass, E., Bruni, L., de Sanjosé, S., Saraiya, M., Ferlay, J., & Bray, F. (2020). Estimates of incidence and mortality of cervical cancer in 2018: a worldwide analysis. *The Lancet Global Health*, 8(2), e191-e203.
- Assoumou S.Z., Mabika B.M., Mbiguino A.N., Mustapha M., Khatabi A. & Ennaji M.M. (2015). Awareness and Knowledge Regarding Cervical Cancer, Pap Smear Screening and Human Papillomavirus Infection in Gabonese women. *BMC Women's Health*, 15, 37. Doi: 10.1186/512905-015-0193-2.
- Aswathy S., Amin Q.M., Kurian B. & Leelamoni K. (2012). Cervical Cancer Screening: Current Knowledge & Practice among Women in a rural population of Kerala, India. *Indian J Med Res*, 136(2), 205- 210.
- Bayu H., Berhe Y., Mulat A., Alemu A (2016). Cervical Cancer Screening uptake & Associated Factors among Age Eligible Women in Mekelle Zone, Ethiopia, 2015: A Community Based study using the Health Belief Model. *PLoS ONE*, 11(3), e0149908. Doi: 10.1371/journal.pone.0149908.
- Boardman C.H (Ed. Warner K.H). (2014). Cervical Cancer: Practice Essentials, Background, & Pathophysiology. Medscape. Retrieved from <http://www.emedicine.medscape.com/article/253513-Overview>.
- Bruni L, Barrionuevo-Rosas L, Albero G, Aldea G, Serrano B, Valencia S, Brotons M, Mena M, Cosano R, Munoz J, Bosch FX, de Sanjose S, Castellsague X. (2016). ICO Information Centre on HPV and Cancer (HPV Information Centre): Human Papillomavirus and Related Diseases in the World. Summary Report. [Accessed on 3rd March 2021]
- Ebu N.I., Mupepi S.C., Siakwa M.P. & Sampelle C.M. (2015). Knowledge, Practice and Barriers towards Cervical Cancer Screening in Elmina, southern Ghana. *International Journal of Women's Health*, 7, 31-39. <http://dx.doi.org/10.2147/ijwh.s71797>.
- Eze J.N., Umeora O.U., Obuna J.A., Egwatu V.E. & Ejikemere B.N. (2012). Cervical Cancer Awareness and Screening uptake at the Mater Mission Hospital, Nigeria. *Ann. Med.*, 11, 238- 243. Doi: 10.4103/1596-3519.102856.
- HPV Information Centre (2015). Kenya| Human Papillomavirus and Related Cancers, Fact Sheet. [Accessed 19 February 2016] at <http://www.hpvcentre.net/statistics/.../KEN.pdf>.
- ICO/IARC HPV Information Centre (2018). Kenya Human Papillomavirus and Related Cancers, Fact Sheet 2018. ICO/IARC Information Centre on HPV and Cancer. Available at <https://hpvcentre.net>. Accessed on 2nd March 2021.

- Idowu A., Anu O.S., Fagbemi T.A. & Oginiaja O.A. (2016). Determinants of Screening uptake among Women in Ilorin, Nigeria: A community based study. *Journal of cancer Epidemiology*. <http://dx.doi.org/10.1155/2016/6469240>.
- Kumar H.N Harsha & Shubham Tanya. (2014). A study on Knowledge & Screening for Cervical Cancer among Women in Mangalore city. *Ann Med Health Sci Res.*, 4 (5), 751 -756. Doi: 10.4103/2141-9248.141547.
- Morema, E. N., Atieli, H. E., Onyango, R. O., Omondi, J. H., & Ouma, C. (2014). Determinants of cervical screening services uptake among 18–49 year old women seeking services at the Jaramogi Oginga Odinga Teaching and Referral Hospital, Kisumu, Kenya. *BMC health services research*, 14(1), 1-7.
- NCCP. National Cervical Cancer Prevention Program: Strategic Plan 2012- 2015. In: services KMoPHaSaMoH, editor. Nairobi, Kenya.
- Nwozor C.M. & Oragudosi A.L. (2013). Awareness and Uptake of Cervical Cancer Screening among women in Onitsha, South East, Nigeria. *Greener Journal of Medical Sciences*, 3(8), 283-288.
- Ombechi Elizabeth A., Muigai Anne. W.T. & Wanzala Peter. (2012). Awareness of Cervical Cancer Risk Factors and practice of pap smear testing among female primary school teachers in Kasarani division, Nairobi, Kenya. *African Journal of Health sciences*, 21 (2), 121-132.
- Owoeye I.O.G. & Ibrahim I.A. (2013). Knowledge and Attitude towards Cervical Cancer Screening among Female Students and Staff in a tertiary institution in the Niger Delta. *Int. J Med Biomed Res*, 2(1), 48-56. Doi: <http://dx.doi.org/10.14194/ijmbr.219>.
- Roxanne Nelson. (2013). Cervical Cancer Screening with Vinegar Reduces Mortality. Retrieved from <https://www.medscape.com/viewarticle/805181>
- Sung, H., Ferlay, J., Siegel, R. L., Laversanne, M., Soerjomataram, I., Jemal, A., & Bray, F. (2021). Global cancer statistics 2020: GLOBOCAN estimates of incidence and mortality worldwide for 36 cancers in 185 countries. *CA: a cancer journal for clinicians*.
- Urasa M. & Darj E. (2011). Knowledge of Cervical Cancer and Screening Practices among Nurses at a Regional Hospital in Tanzania. *Afr Health Sci*, 11(1), 48-57.
- WHO. (2015). Cancer Fact sheet 297. Retrieved from <http://www.int/mediacentre/Factsheets/Fs297/en>.
- WHO. (2016). Human Papillomavirus (HPV) and cervical cancer Fact sheet. Accessed 15/07/2016 at <http://www.who.int/mediacentre/factsheets/fs380/en/>.
- Wong LP, Wong YL, Khoo EM. & Shuib R. (2009). Knowledge and Awareness of Cervical Cancer and Screening among Malaysian women who have never had a pap smear: A qualitative study. *Singapore Med J* 50(1), 49-53. Doi: 10.1080/10705500802365490.