Influence of Media Messages on Self-efficacy Towards Cervical Cancer Screening Among Women Aged 18-30 Years in Kiambu Institute of Science and Technology

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Cervical cancer is a major **global health threat**.

- From sexually transmitted HPV. Over 270,000 deaths annually; 85% in developing world.
- 13m women of 14-44 years at risk in Kenya.
- 10-15 cases each week in Nairobi (Kivuti-Bitok, et al., 2012)
- 4800 diagnosed annually in Kenya. Over 2,400 die (Bruni et al., 2015).

**Risk factors**

- Sexually active women esp. of with multiple partners, Early sexual activity, use of oral contraceptives, smoking.
- Young women of university/college age at higher risk than others (Hoque et al., 2014).

**Preventable** if detected early.

- Screening reduces mortality rates by 80% in women over 21 years (National Cancer Institute, 2015).
- Critical time for detecting non-invasive disease is between 20-40 years (Kesharvarz et al., 2011).
- Knowledge about disease has a direct influence on the uptake of screening (Rositch et al., 2012).
Problem

Awareness and take up of cervical cancer screening by women aged 18-30 years is most effective in the prevention and early diagnosis for cervical cancer (Keshavarz et al., 2011; WHO, 2015).

• Young women in Kiambu **poorly informed** about cervical cancer, its risk factors, benefits of screening for preventing it (Gatune & Nyamongo, 2005).

• Have **inaccurate information, beliefs and attitudes** about need for screening (Hoque et al, 2014).

• **Low use** (3.2% among women 18-69 years) of over **100 screening** sites in Kenya (Rositch et al., 2012).

• Limited research on **efficacy of cervical cancer messages** in promoting screening for the disease in Kenya.
Objectives

To investigate the relationships between cervical cancer messages and their influence on self-efficacy towards cervical cancer screening among college age women of 18-30 years at the Kiambu Institute of Science and Technology (KIST).

1. Establish key sources of cervical cancer messages for young women in KIST
2. Describe how media frames of cervical cancer messages were perceived
3. Identify the link between perceived framing of cervical cancer messages and influence of such messages on self efficacy
4. Establish if this self-efficacy influences adoption of cervical cancer screening
Theoretical Framework

Used **social cognitive theory**

Self-efficacy—“perception of one’s capability to perform an action or a behaviour”, determines use of health information to address health challenges (Bandura, 1977).

Health messages have strong influence in increasing self-efficacy (Sarge & Knobloch-Westerwick, 2013).

- CC messages that increase self-efficacy can help overcome barriers and has been been shown to lead to more Pap test (Ma et al., 2013).
- Role of social networks in behaviour change.

and **message framing theory** from “framing theory” by Goffman (1974).

- People interpret what’s around them through a “primary framework”.
- “Field of meaning” within which CC messages are communicated by media influences attitudes, and behaviour (Coleman, Thorson, & Wilkins, 2011, Gesser-Edelsburg, et al., 2015).
Message frames were assessed in terms of how they were perceived by the sample in terms of

1. **Gain frames**— highlight the benefits of engaging in a particular behaviour
2. **Loss frames**— focus on consequences of failing to engage in a particular behaviour

Individuals with high self-efficacy better able to moderate the impact of gain- and loss-framed messages compared to those who low self-efficacy (Nyakundi, Mberia, & Ndati, 2014).

Self-efficacy as the dependent variable and how it was influenced by the independent variable of message framing (gain-framed or loss-framed).
Quantitative case study research design. To allow statistical analysis of relationships between variables in the study.

Sample of 158 from population of 269 female students in KIST (KIST, 2015).

110 questionnaires were successfully completed. Analysis with SPPS v20

Findings
76.4% of respondents were aged 21-23 years, single (87.3%) diploma students (66%).

Sources of cervical cancer messages
Most had heard about cervical cancer from television (88.2%) Radio and internet sources (62.7% each) Newspapers (59.1%). Friends (19.1%), family members (12.7%) and health officers (10.9%).
Data Analysis and Findings (2/5)

**Perceived framing of messages**

64% said cervical cancer was portrayed positively as a serious disease that can be prevented and treated suggesting most messages were perceived to use the gain frame.

**Influence of messages on self-efficacy**

- **97.2%** of the respondents said they felt unmotivated to find out more CC when they first heard about it.
- **89.1%** were scared when they first heard about the disease.
- **93.6%** said the information gave insufficient knowledge on disease.
- or how to detect it early (88.2%).

Suggests messages had insufficient information to address self-evaluative reactions that precede behaviour change towards screening and had limited effectiveness in raising self-efficacy towards screening for the disease.
• **75.5%** of respondents said they were motivated to go for cervical cancer screening when they first heard about it.

Chi square tests showed that relationship between cervical cancer portrayal and the importance attached to screening was significant ($X^2= 70.76$, $p=0.000$) demonstrating that message framing of the disease was associated with importance respondents attached to screening, which corroborates previous findings (Sarge & Knobloch-Westerwick, 2013).

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**Awareness of cervical cancer and need for screening from messages**

• **65%** of the respondents said that it was **important to go for screening** indicating that the messages were persuasive towards the importance of cervical cancer screening.
Establishing if self-efficacy arising from CC messages influences adoption of screening

9% of respondents had been screened. **3.2%** national average in Kenya (Bruni et al., 2015)

Low screening suggested that the gain-framed cervical cancer messages did provide sufficient information to raise self-efficacy of the female students in KIST to take up screening.

*Why not screened?*

- Thought it was expensive (**86.4%**)
- Did not have enough information about the disease (**83.6%**)
- Afraid of positive test results (**82.7%**)

- **84%** said they would take up screening in future.
• Chi square tests indicated that being screened or having a Pap smear was influenced by how screening was portrayed in cervical cancer messages ($X^2=25.25$, $p=0.000$).

• The relationship between being screened for cervical cancer or having a pap smear test and empowerment (from cervical cancer messages) was also significant ($X^2=14.55$, $p=0.000$).
• A key finding that existing gain-framed messages influenced importance attached to screening for cervical cancer by young women of 18-30 years but did not translate into more occurrences of screening (most respondents in sample had not been screened).

• In terms of role of social context in increasing self-efficacy for CC screening, interpersonal sources (family, health officers etc.) that have been significantly effective elsewhere had much less influence among young women sampled.

• Research assessed the influence of messages framing on self-efficacy at the time of data collection and ‘time’ may affect screening decisions.
Recommendations

• Better targeted media messages with **appropriate and specific information** on the risks of cervical cancer including **benefits of early screening and pre- and post-test procedures and outcomes** to make them more relevant in raising self-efficacy for screening among young women.

• **Complement media messages** on cervical cancer with messages from other sources, particularly social media whose use is prevalent among young people.

• A cross-sectional study could also investigate if those unscreened **take up screening later** and the factors that influence their self-efficacy towards decision.

• A content analysis could also provide more details on the **limitations of current messaging about cervical cancer**.
Thank You