
GOVERNMENT INITIATIVES AND PUBLIC AWARENESS ON HIV/AIDS IN MALAYSIA: WHERE ARE WE AFTER 30 YEARS?

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Abstract

HIV/AIDS has been a growing public health problem in Malaysia for over three decades. To curb the spread of HIV/AIDS and to increase public awareness regarding the disease, numerous initiatives have been developed by various stakeholders. This study is an exploratory investigation of health communication and public awareness of HIV/AIDS, based on a cross-sectional survey of 384 respondents in Klang Valley, Malaysia. The study examines public knowledge of HIV/AIDS and public perceptions of people living with HIV/AIDS (PLHIV) as well as public awareness of public initiatives. The results show that interpersonal channels are important HIV/AIDS informational sources, and that newspapers are a major mass communication or media source for HIV/AIDS information. The public is generally aware of HIV/AIDS transmission, but still harbors moderate, rather than straight-cut positive, perceptions and attitudes towards PLHIV. This shows that the National Strategic Plan on HIV/AIDS may not be fully supported by existing public initiatives.

Keywords: *HIV/AIDS, public awareness, health communication, public initiatives.*

INITIATIF KERAJAAN DAN KESEDARAN PUBLIK TENTANG HIV/AIDS DI MALAYSIA: DI MANA KITA SELEPAS 30 TAHUN?

Abstrak

Sejak tiga dekad yang lalu, HIV/AIDS telah menjadi satu masalah kesihatan awam di Malaysia. Bagi mengawal penjangkitan HIV/AIDS dan meningkatkan kesedaran awam tentang penyakit ini, pelbagai inisiatif telah diambil oleh pihak berkepentingan. Kajian ini mengkaji pengetahuan publik tentang HIV/AIDS dan persepsi mereka terhadap orang yang hidup dalam HIV/AIDS (PLHIV) serta kesedaran mereka tentang inisiatif publik yang diambil untuk mengawal penyakit berjangkit ini. Seramai 384 sampel dari Lembah Klang dipilih untuk kajian ini. Hasil dapatan kajian ini menunjukkan bahawa komunikasi interpersonal merupakan sumber maklumat utama HIV/AIDS dan surat khabar merupakan sumber maklumat penting dalam komunikasi massa. Secara umumnya, publik mempunyai pengetahuan tentang cara penularan HIV/AIDS. Akan tetapi, mereka masih mempunyai tanggapan dan tingkah laku yang sederhana terhadap PLHIV. Ini menunjukkan *National Strategic Plan on HIV/AIDS* dan tidak membawa impak positif dalam usaha mengawal jangkitan HIV/AIDS.

Kata kunci: *HIV/AIDS, kesedaran publik, komunikasi kesihatan, inisiatif publik.*

INTRODUCTION

At both the macro-social societal level and the more micro-social personal level, humanity now faces a growing array of deadly communicable diseases. While media coverage may highlight the deadly nature of certain highly contagious diseases during epidemics (e.g., 2014 Ebola epidemics, 2009 H1N1), ongoing spread of other silent communicable diseases is no less a threat to public health. HIV/AIDS is a case in point. These grave challenges to public health highlight the importance not only of sound science but also effective health communication. Communication between the medical fraternity, health agencies and the public is vital to promote preventive and protective measures to prevent the spread of communicable diseases, as well as disseminating vital information in cases where such diseases have infiltrated a population (Krishnan & Samsudin A. Rahim, 2014).

Although government sources such as the Ministry of Health and health care practitioners have historically been the primary sources of health and medical information (Khor, 1994), with the advancement of communication and media technologies, there now exists easy access to a varied array of alternative sources of health information, much of it mediated and available at our fingertips (Slooten, Friedman, & Tanner, 2013; World Health Organization [WHO], 1998; Kremer & Ironson, 2007; Brodie, Kjellson, Hoff, & Parker, 1999). Recent research has shown that the media play a very important role in disseminating information related to health and medicine. For example, a study among 16- to 18-year-old girls in India found that their preferred channels for obtaining information about AIDS education are largely television news, newspaper articles and conversation with friends or peers (Sawhney & Kaul, 2012). A US-based study as far back as the end of the previous century revealed that notwithstanding ethnic differences in rating credibility of media coverage and media sources, African Americans, Latinos and Whites all relied heavily on media when seeking health information. Public reliance on media for health information is not only confined to medical information, but also includes public awareness and understanding of health policies (Tham, 2014; Tham & Zanuddin, 2012; Faridah Ibrahim, Normah Mustafa, & Chang, 2010; Chanda, Mchombu, & Nengomasha, 2008;

Tong, 2006; Miller, Kitzinger, Williams, & Beharrell, 1998; Brännström & Lindblad, 1994).

As is the case with modern humans' understanding of our social environment, much of the public's understanding of health and health policy is not from direct experience, but comes from mediated sources (Ahmed & Bates, 2013; Tham & Hasmah Zanuddin, 2012; Tham, 2014; Miller, et al., 1998; Brännström & Lindblad, 1994; Faridah Ibrahim, et al., 2010; Chanda, et al., 2008; Tong, 2006). This is especially true for society at large and for individuals who have thus far been spared from communicable diseases, and for whom the idea of a health epidemic is largely an abstraction. The world, including public health, has to be explored, reported and imagined (Price, 1992), paralleling a famous quote from scholar Walter Lipmann (1922)—*the world outside and the pictures in our head*—highlighting our need for media to paint a picture of public health for our head.

Health communication is an indispensable component of an integrated public health response plan and an important element to achieving greater empowerment of individuals and communities through the dissemination of information and public engagement in disease prevention and cure (Santibañez, Siegel, O'Sullivan, Lacson, & Jorstad, 2015; WHO, 1998). It is the key to the dissemination of information and public engagement with disease prevention and cure, and also ensuring quality health care (WHO, 1998; Schiavo, 2014).

As defined by the US Department of Health and Human Services (2015), health communication is essentially a study, and this study employs communication strategies to inform, influence and galvanize individuals, institutions and members of the public to make efficacious decisions to improve health and enhance quality of life (Ahmed & Bates, 2013; Schiavo, 2014). Health communication encompasses various areas such as interpersonal communication, media advocacy, social marketing, etc. (WHO, 1998; Bernhardt, 2004; Schiavo, 2014). It can be argued that health communication is 'transdisciplinary in nature' (Bernhardt, 2004, p. 2051; Schiavo, 2014). This discipline requires behavioural and social change and uses a multifaceted approach grounded in the application of a number of theoretical frameworks and disciplines, including health education, social marketing, behavioural and social change theories and medical and clinical models (Schiavo, 2014).

From the macro-sociological perspective of the nation, health communication efforts, particularly with regard to deadly communicable diseases like HIV/AIDS, requires a concerted effort by numerous stakeholders. In addition to the medical fraternity and its direct provision of health care, and the media whose role in bridging the information gap between health care practitioners and the public, influential stakeholders include government agencies with a remit to conduct health campaigns and non-governmental organizations (NGOs) with their ability to initiate action. In particular, a nation's government is also a highly important stakeholder, with its ability to set policy and to distribute national wealth and resources to not only provide health care but also to facilitate public health communication.

This paper takes the case of Malaysia and its public health communication in regard to HIV/AIDS. Our starting point for this discussion is Malaysian public policies and initiatives in combating HIV/AIDS.

MALAYSIAN PUBLIC INITIATIVES OF HIV/AIDS

Malaysia's first documented HIV case occurred in Kuala Lumpur in December 1986. After 29 years until March 2015, a total of 105,988 HIV cases have been documented; 799 new HIV cases were reported in Malaysia in 2015. The number of new cases reported in 2015 was 3196 compared to 3517 new cases in 2014 (Kaur, 2015).

According to the World Health Organization (WHO), Malaysia is classified as "a concentrated epidemic country" (HIV/STD Section, 2012), wherein HIV/AIDS is still concentrated mainly within the most-at-risk populations especially among injecting drug users (IDUs), sex workers and transgender (TG) population (Mondal & Shitan, 2013a). However, recent trends in the second decade of the 21st century indicate that the epidemic is no longer confined to these populations, but is spreading to women who contract the disease from their partners (Barmania, 2013; Mondal & Shitan, 2013b; Tham & Hasmah Zanuddin, 2015).

A new understanding is now emerging that HIV/AIDS is not an ordinary health problem, but a health epidemic, requiring special measures and concerted efforts of multiple stakeholders. In one of the first steps to combat the spread of HIV after the first reported cases, the Ministry of Health designed a New AIDS Policy and allocated

RM218 million to tackle the disease (Khattab, 2001). Apart from that, Malaysia introduced a safe-blood programme to screen all blood donations in an effort to ensure that all donated blood is HIV-free. Six years later, the Ministry of Health and several non-governmental organisations formed the Malaysian AIDS Council, creating an umbrella body of NGOs working to reduce the spread of HIV/AIDS as well as to provide support for people living with HIV/AIDS (Khattab, 2001; United Nations Children's Fund [UNICEF], 2008). From the turn of the 21st century onwards, a number of policies and initiatives have been proposed and implemented, driven not only by government agencies but also non-governmental organisations, chief among the latter being the Malaysian AIDS Council and PT Foundation, formerly known as Pink Triangle Sdn. Bhd.

Malaysian drug laws are among the strictest in the world and allow capital punishment, including canning and the death penalty for distributing and smuggling drugs, including intravenously injected illegal substances (Reid, Adeeba Kamarulzaman, & Sran, 2007; Open Society Institute, 2006). Despite these harsh laws, intravenous drug use proliferated and proved to be the main mode of HIV transmission during the onset of the HIV/AIDS epidemic in Malaysia, with injecting drug users (IDUs) making up the bulk of HIV/AIDS carriers (HIV/STD Section, 2012).

In order to address HIV transmission related to drug use, the Malaysian government initiated the Harm Reduction Programme for people who inject drugs intravenously in January 2004. The Harm Reduction Programme is a holistic prophylactic programme aimed at reducing sharing needles among injecting drug users. The programme included the Needle Syringe Exchange Programme (NSEP), which offers clean needles and syringes to drug users and the Methadone Maintenance Therapy (MMT) for heroin addicts, wherein synthetic methadone is used to reduce dependency on heroin (The World Bank, 2013).

Malaysia's harm reduction programme was somewhat controversial, with opponents criticising what appeared to be legitimizing of illicit drug use (Reid, et al., 2007). However, with the estimated number of 170,000 IDUs in Malaysia, the decline in HIV infections among intravenous drug users reportedly saw a steady decline down to 38.7 per cent in 2011. HIV transmission due to needle-sharing among injecting drug users is projected to decline from 11 per cent in 2011 to 10 per cent in 2015. This declining

trend suggests that on-going prevention programmes like the Needle Syringe Exchange Programme (NSEP) are effective preventive measures to reduce HIV/AIDS transmission (IAS Conference on HIV Pathogenesis, Treatment and Prevention, 2013).

Another major initiative to combat the spread of HIV/AIDS is the Premarital HIV Screening Programme, pioneered in November 2011 (Khebir, Adam, Daud, & Shahrom, 2006; Tham & Hasmah Zanuddin, 2014; Open Society Institute Public Health Program, n.d.). According to *Jabatan Kemajuan Islam Malaysia* (JAKIM), or the Department of Islamic Development Malaysia, all states have followed suit with their own screening programmes (Tham & Hasmah Zanuddin, 2014). Premarital HIV screening programmes are run by state religious departments in collaboration with the Ministry of Health. The goal of the programme is to prevent and reduce HIV transmission between heterosexual married couples, encouraging couples “to know your HIV status before marriage, to protect your family members and subsequently to counsel and educate the public”, but not “to prevent marriage”, as alleged by critics (Barmania, 2013). Screening is highly encouraged, particularly by JAKIM and the respective state religious departments. However, it is not mandatory, and Muslim couples who undertake the HIV tests do so voluntarily. Despite its voluntary nature, and its inability to prevent HIV transmission brought about by post-screening risky behaviour, JAKIM claims these programmes are successful (Tham & Hasmah Zanuddin, 2014).

In addition to preventive measures like harm reduction and premarital HIV/AIDS screening, Malaysia’s HIV/AIDS initiatives also include public education campaigns. As early as 1996, the Malaysia’s Ministry of Health’s Education unit launched the Healthy Living without AIDS for Youth Programme, or *Program Sihat Tanpa AIDS untuk Remaja* (PROSTAR). The programme targeted youths between the ages of 13 to 25. Its main objective was to raise awareness of HIV/AIDS and its prevention among teenagers (Samsudin A. Rahim & Latiffah Pawanteh, 2000).

More recently, however, concerted policy-led efforts to address HIV/AIDS epidemic has come in the form of a five-year National Strategic Plan (NSP) on HIV and AIDS. Initially formulated for the five-year period of 2006-2011, the recently concluded second NSP 2011-2015 was formulated in tandem with the United Nations’ ‘getting to zero’ initiative, aiming for zero new infections, zero discrimination and zero AIDS-

related deaths. NSP 2011-2015 aimed to provide an appropriate balance between prevention, treatment, care and support. The specific objectives of this government-led strategic plan include:

1. To further reduce by 50 per cent the number of new HIV infections by scaling up, improving upon and initiating new and current targeted and evidence-based comprehensive prevention interventions;
2. To increase coverage and quality of care, treatment and support for people living with HIV and those affected;
3. To alleviate the socioeconomic and human impact of AIDS on the individual, family, community and society;
4. To create and maintain a conducive and enabling environment for government and civil society to play meaningful and active roles in decreasing stigma and discrimination; and
5. To further increase general awareness and knowledge of HIV, and reduce risk behaviour among at-risk and vulnerable populations.

A key element to the success of all the interventions mentioned above is communication between stakeholders and intended beneficiaries of the programme, namely the public. Awareness, preventive behaviour, and attitude and behavioural change intended by interventions necessarily depend on the extent to which the public is exposed to and aware of the various initiatives and programmes. In other words, the success of HIV/AIDS interventions is in large part dependent on the effectiveness of health communication regarding HIV/AIDS. Similarly, public perception and treatment of PLHIV is also very much influenced by health communication efforts geared to the public.

Despite the severity of HIV/AIDS as a public health threat and the important role of public health communication in preventing HIV/AIDS, research is lacking on public health communication regarding HIV/AIDS in Malaysia. This study attempts to address this gap. From the perspective of the UN's aim of "getting to zero" as well as the stated objectives of Malaysia's National Strategic Plan on HIV and AIDS, several key questions about the effectiveness of HIV/AIDS health communication need to be asked and addressed:

1. What are the extent of public knowledge and awareness of HIV/AIDS transmission modes?
2. What are the public's primary sources of HIV/AIDS information?

3. What are the public's perceptions and attitudes towards people living with HIV/AIDS (PLHIV)?
4. Are the public aware of government policies and nationwide initiatives and programmes to address HIV/AIDS?
5. To what extent do answers to the above questions indicate the success of the National Strategic Plan (NSP) on HIV/AIDS?

RESEARCH METHOD

A stratified random sampling was implemented in Klang Valley. Based on a list of demographics obtained from the Department of Statistics Malaysia, Klang Valley is categorized into six districts: (1) Federal Territory of Kuala Lumpur, (2) Gombak, (3) Klang, (4) Petaling, (5) Sepang and (6) Ulu Langat. 384 respondents were recruited for the study using Krejcie and Morgan's formula (Krejcie & Morgan, 1970).

The survey questionnaire was administered by an enumerator, namely the first author. Prospective survey respondents were screened based on whether or not they had heard of Human Immunodeficiency Virus (HIV) or Acquired Immunodeficiency Syndrome (AIDS). A total of eight respondents had not heard of HIV or AIDS and were excluded from the study. A further four respondents who did answer the survey questionnaire were excluded from analyses due to missing information. This study's findings and analyses were therefore based on the remaining 372 respondents.

Visibility of government policies and communication campaigns on HIV/AIDS among the respondents were measured using dichotomous measurement (Yes or No). The participants were asked to identify any of the government policies and communication campaigns with regard to HIV/AIDS that they have heard of.

The instrument was developed and modified to the need of this study based on previous research (Shah et al., 1991; Turk. Ewing, & Newton, 2006; Zulkifli, Huang, Low & Wong, 2007; Inungu, Mumford, Younis, & Langford, 2009). There were 22 items to assess respondents' preferred source(s) for HIV/AIDS-related information and their knowledge about HIV/AIDS (Cronbach's Alpha = .79). Six items were designed to measure respondents' perceptions of PLHIV and attitudes towards PLHIV respectively (Cronbach's Alpha = .72 for both). Five items assessed respondents' personal perceptions of HIV/AIDS messages in the media (Cronbach's Alpha = .82). The questionnaire was plotted on a 5-point Likert scale; from strongly disagree to strongly agree.

Data was recorded and analysed using Statistical Package for the Social Science (SPSS 20.0). Statistical analysis included parametric statistics (i.e., t-tests) and non-parametric statistics (i.e., frequencies, percentages, mean and standard deviation). Exploratory factor analysis was conducted to determine respondents' main sources for HIV/AIDS information. Kaiser-Meyer-Olkin (KMO) and the Barlett's test of sphericity were used to determine the data set's suitability for factor analysis. A data set is judged to be applicable for a factor analysis if the KMO's value is greater than 0.50 and the Barlett's test of sphericity is significant with the *p*-value less than .05 (Chua, 2009).

RESULTS

Demographic characteristics

Table 1 summarises the demographic characteristics of all 384 participants for this study. Out of 384 respondents, six of them have never heard about the disease. Thus, these people were excluded from the inferential data analysis but will be retained for descriptive analysis. The table shows that males accounted for 45.3% of the respondents, while females accounted for 54.7%. The overall mean age of the respondents was 28.35 years (SD = 11.52); males had a mean age of 27.19 (SD = 10.96) while females had a mean age of 29.31 (SD = 11.89). The majority participants were Malays (55.2%) followed by Chinese (30.2%), Indians (12.2%) and others—consist of indigenous—were 2.3%. More than half of the respondents were Muslims with 56.8% and another 43.2% were non-Muslims. Ninety-two per cent of the respondents had higher education (minimum SPM level) while 7.3% of the respondents had lower education.

Table 1: Socio-demographic characteristics.

Variable	Parameters	N	(%)
Gender	Male	174	45.3
	Female	210	54.7
Age	Mean ± SD	28.35 ± 11.52	
Ethnicity	Malay	212	55.2
	Chinese	116	30.2
	Indian	47	12.2
	Others	9	2.3
Religion	Islam	218	56.8
	Buddhist	69	18.0
	Taoist/Confucianism	15	3.9

	Hindu	38	9.9
	Christian	28	7.3
	Catholic	7	1.8
	Others	9	2.3
Education Level	Lower	28	7.3
	Higher	356	92.7

Public knowledge of HIV/AIDS transmission modes

Overall, over 90 per cent of respondents were aware of HIV/AIDS transmission modes. Most of the surveyed respondents agreed HIV can be transmitted through unprotected sexual intercourse (92.6%) and pregnancy (67.2%). However, misconceptions existed among some who believed that HIV/AIDS can be transmitted via skin contact (6.3%), kissing (28.3%), cough/sneeze (21.1%), bites from mosquitoes or other insects (32%), sharing foods or drinks (23.1%), sharing clothing (9%) and sharing utensils (22.8%).

HIV/AIDS Information Sources

Health care practitioners (doctors or/and nurses) had the highest frequency, while relatives had the least (Table 2). Television was only considered as the third highest used source in this study (273, 72.2%), while the Internet was considered the fifth (273, 72.2%). Interestingly, friends and relatives ranked low as sources for information about HIV/AIDS.

Table 2: Sources of HIV/AIDS information used

No	Source of Information	N	(%)
1	Health care practitioners (doctors or/and nurses)	302	79.9
2	Peer educators	213	56.3
3	Internet	273	72.2
4	Television	276	73.1
5	Radio	222	58.7
6	Newspaper	277	73.3
7	Magazine	245	64.8
8	Brochure/pamphlet	240	63.5
9	School's teachers	275	72.8
10	Partner	183	48.5

11	Friends	174	46.1
12	Relatives	168	44.5

Major HIV/AIDS information sources used

Exploratory factor analysis was employed to analyze the main informational sources for HIV/AIDS. The sources in Table 2 were reduced using Principle Component Analysis (PCA) in order to determine which sources are most promising for future HIV/AIDS campaigns. Table 3 shows that friends (.891), health care practitioners and newspapers are the major sources of HIV/AIDS information.

Table 3: Major sources of HIV/AIDS information used

No	Source of Information	Loadings
1	Friends	.891
2	Partner	.855
3	Health care practitioners	.852
4	Relatives	.843
5	Newspaper	.841
6	Radio	.834
7	Television	.822
8	Magazine	.693
9	Brochure/pamphlet	.564
10	Peer educators	.508
11	School's teachers	.462

Note: 'Internet' has been excluded as its commonalities was less than 0.50.

Perception towards People Living with HIV/AIDS (PLHIV)

This study concludes that in general, the surveyed respondents harbored moderate perceptions towards PLHIV at $M = 3.53$ ($SD = .61$). Female had a higher total mean score ($3.60 \pm SD = .60$) compared to male respondents ($3.45 \pm SD = .61$). Respondents who are educated, at least up to PMR level, were reported to have a total mean score at 3.29 ($SD = .56$), while respondents who have at least SPM and above reported a total mean score at 3.55 ($SD = .61$). Thus, education level seems to be an important

indication of moderate perceptions of PLHIV. Significant differences were found between male and female. The independent t-test indicated that there is a significant difference between male ($M = 3.45$) and female ($M = 3.60$); $t(376) = -2.485$, $p < .05$ on their perception towards PLHIV. The mean difference ($M = -.15$) showed that female respondents were more likely to show moderate perception towards PLHIV compared to male respondents.

Attitude towards People Living with HIV/AIDS (PLHIV)

Notwithstanding moderate perceptions towards PLHIV, this study's survey results indicated that respondents also had slightly less moderate attitudes towards PLHIV. Fewer than half of the surveyed respondents (49.2%) were willing to work with PLHIV if they are asked to do so. More than fifty per cent of the respondents would keep away from their close friends or kin if they are people living with HIV/AIDS (57.4%). In Malaysia, openly discussing HIV/AIDS is still a taboo (Tham & Hasmah Zanuddin, 2015). As expected, 65.7% refused to talk to friends or family members about HIV/AIDS-related issues. Only about a quarter of respondents (26.9% and 39.7%) were willing to buy foods from vendors or shopkeepers who are PLHIV and to have a meal with them. As expected, with stigma and discrimination pervasive within the general population, less than half of respondents (38.7%) were willing to let others know if one of their friends or family members is infected with HIV.

In this study, we found that there is a significant difference between male and female respondents with regard to their attitude towards people living with HIV/AIDS, $t(376) = -2.200$, $p < .05$. Male respondents carried a mean score of 3.23 ($SD = .62$), while female respondents carried a mean score of 3.36 ($SD = .58$). The mean difference ($M = -.13$) indicated female respondents were more likely to show moderate attitudes towards PLHIV compared to male respondents.

Personal perception of HIV/AIDS messages in the media

54.5% of the respondents agreed that newspapers provide information about HIV/AIDS. Forty-nine per cent of the respondents revealed that they preferred to use local newspapers to find out HIV/AIDS-related information. The reason behind this is because newspapers are cheap (49.4%). Research indicated that it is important for

PLHIV voices to be heard in order to facilitate aid, support and integration into society (Tham, 2014; Lean, 2005; Hsu, 2001). Similarly, 73.5% of respondents preferred to hear more voices from PLHIV in media coverage to better understand them. Interestingly, more than fifty per cent of the surveyed respondents believed that AIDS messages in newspapers have prompted them to change their lifestyle (56.1%). Although most of the respondents had positive perception towards the media, 69.6% of the respondents agreed there are not enough HIV/AIDS media campaigns in Malaysia. In addition, we also found that 69.9% of the respondents were dissatisfied with the low attention given to HIV/AIDS issues in local papers.

Public Awareness of Public Initiatives: Government Policies and Communication Campaigns

Although the government has introduced some significant policies to tackle HIV/AIDS in Malaysia, the visibility of the policies among the respondents is rather low. Only 18% and 14% of the respondents heard about the National Strategic Plan on HIV/AIDS 2006-2010 and 2011-2015 respectively. Although NSEP contributes to the reduction of HIV/AIDS infection among injecting drug users, only 33.9% of the surveyed respondents heard about the Needle Syringe Exchange Program (NSEP) and the Prevention and Control Infectious Disease Act 342 (1988). Only slightly more than half of the respondents (52.1%) heard of the Pre-marital HIV Screening Programme.

In terms of the communication campaigns on HIV/AIDS, 52.9% and 55.8% of the respondents heard about PROSTAR and the World AIDS Day respectively. For the Standard Chartered-AIESEC HIV/AIDS Learning Network Programme, only 21.2% of the respondents knew about the programme.

In order to examine respondents' preferred sources for information about these policies and campaigns, multiple responses and multiple dichotomy analysis was performed. Table 7 shows the most frequently cited source of information for government policies and communication campaigns on HIV/AIDS was television. The five most frequently cited sources of information (Figure 1) (multiple responses allowed) were television (75.2%), newspaper (73.6%), Internet (69.7%), brochure/pamphlet (58%) and radio (54.8%). Less frequently used sources of information were peer educators (35%), partner (25.2%) and relatives (25.2%).

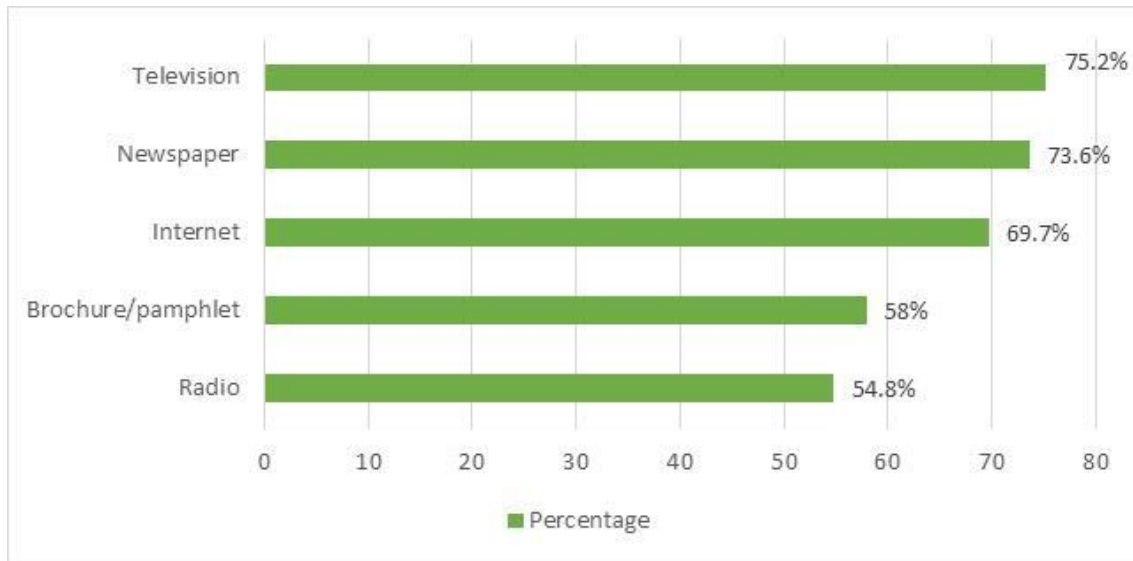


Figure 1: Top five informational sources regarding government policies and communication campaigns on HIV/AIDS (Multiple responses allowed)

DISCUSSION

To answer our research questions, the above results lead us to the conclusion that interpersonal channels are important HIV/AIDS informational sources, and that newspapers are a major mass communication or media source for HIV/AIDS information. We can also conclude that the public is generally aware of HIV/AIDS transmission, but still harbor moderate, rather than straight-cut positive, perceptions and attitudes towards PLHIV. What all these mean is that the National Strategic Plan on HIV/AIDS (NSP) may not be fully supported by existing public initiatives and current media coverage of HIV/AIDS.

This study's results hint at the success of one NSP objective, namely increasing general awareness and knowledge of HIV, other NSP objectives are not well supported by the data. Results of this current study suggest that the public is not fully aware of public initiatives (government policies and public campaigns) to address HIV/AIDS. Furthermore, this study's findings of moderate perceptions and attitudes towards PLHIV indicate that a number of important NSP objectives have yet to be achieved. Results of this current study indicate that the following NSP objectives have not been achieved yet: NSP objectives of increasing coverage and quality of care, treatment and

support for PLHIV and their significant others; and NSP objective to alleviate the socioeconomic and human impact of AIDS on the individual, family, community and society. As it is out of the scope of this study to measure the reduction of HIV infections or effectiveness of evidence-based prevention interventions, we are not able to draw conclusions about NSP's objectives to do so. It is also out of this study's scope to measure NSP's objective of reducing HIV/AIDS risk behavior.

Individuals' choices and preferences of information sources are very important in meeting the information needs of people especially in a communication environment where mobile, networked technology and new media applications facilitate searching and sharing of information. Nonetheless, even in such an environment, health care practitioners emerged as one of respondents' most preferred informational sources, both overall and within the interpersonal communication category, whilst a very traditional form of media, newspapers, emerged as the most preferred mass communication channel for obtaining information on HIV/AIDS. Even more surprisingly, exploratory factor analysis results excluded the Internet due to low communalities (<.50). Exploratory factor analysis reduced the original 12 informational sources to three sources.

Based on the factor loadings, friends, health care practitioners and newspaper were the three most preferred sources for HIV/AIDS information. Interpersonal communication channels are preferred over any mass communication, including newspapers. Newspapers, however, lead in the mass communication category of informational sources. These findings resonate with previous research. Korhonen, Uutela, Korhonen, and Puska (1998) found that exposure to health communication in the mass media and interpersonal influences were important for smoking cessation attempts. They further elaborated when both interpersonal and mass media communication were reported, the highest impact was seen in cessation attempts among the participants for the research. Therefore, our findings provide important insight to policy makers, looking for a better channel to circulate information regarding HIV/AIDS to members of the public.

In Malaysia, religious and cultural taboos with regard to discussing sexuality and sexual practices complicate efforts to expand visibility and reach of HIV prevention and treatment programmes, as well as government policies and communication

campaigns to the general public (Tham & Zanuddin, 2015). Our findings indicate that over 50 per cent of survey respondents agreed that there are low visibility and attention given to media campaigns on HIV/AIDS in local newspapers. Although the government has agreed to implement the Needle Syringe Exchange Programme (NSEP), the visibility of the programme among the public is rather low.

Notwithstanding government active initiatives address HIV/AIDS as a public health issue, little effort is made to rectify misconceptions about, and negative perception towards, PLHIV among the public. However, such efforts do not necessarily have to be difficult. In fact, one approach that the government could draw on to prevent the spread of HIV prevention and to reduce HIV-related stigma and discrimination is by engaging the public. Citizen engagement processes can help build public trust, improve accountability and provide insights around quality. Once the public are aware and informed of public initiatives to address HIV/AIDS-related issues, they will inform their relatives and friends through word-of-mouth approach. The current explosion in social media use and popularity of viral posts and videos for example via Facebook and YouTube, and Malaysia's propensity for sharing word-of-mouth information via mobile texting services such as WhatsApp are particularly useful for word-of-mouth social marketing aimed at changing attitudes. Public health communicators need to leverage existing social marketing channels to further improve existing mechanisms for improving HIV/AIDS campaigns and public engagement.

CONCLUSION

These results highlight both a disturbing issue and a great potential for public health communication regarding HIV/AIDS. Firstly, lack of public awareness of major policies and costly campaigns raise questions regarding the effectiveness of these major public initiatives in educating the public and in creating behavioural change to curb the spread of HIV/AIDS, and to foster acceptance of PLHIV.

However, at the same time, these findings suggest that interpersonal communication may be a potentially powerful channel for public health communication regarding HIV/AIDS. Thus, a major implication of the result of this study is that more effective initiatives to address public awareness and behavioral change could be achieved by allocating material and manpower resources to develop social marketing

campaigns to foster ‘word-of-mouth’ or ‘viral’ dissemination of public health information in tandem with public policies and behavioral change campaigns, as well as media coverage of HIV/AIDS. Anecdotal evidence in recent years, suggest that such social marketing strategies have been successful in various initiatives such as raising awareness as well fundraising (e.g., “icebucketchallenge” to raise awareness of Amyotrophic Lateral Sclerosis [ALS]; National Autism Society, NASOM’s and Lite FM’s campaign to raise money by asking the public to “Like” the YouTube video of an autistic teenager singing). While it may be difficult to translate awareness into action simply through media coverage or educational campaigns, social marketing experts highlight that attitude formation is highly important for devising effective interventions, as well as for assessing their effectiveness (Andreasen, 2002).

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