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Newspaper coverage of HIV/AIDS in China from 2000 to 2010

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Abstract

Mass media in China play a significant role in the dissemination of HIV/AIDS knowledge to the general public. Previous studies have described how the Chinese mass media portray HIV/AIDS in general, but no study has yet to examine changes in patterns of HIV/AIDS reporting over time. This study aims to describe and examine newspaper coverage of HIV/AIDS in China from 2000 to 2010. A systematic search of the China Core Newspapers Database was conducted to identify HIV/AIDS-focused news articles; we found 3648 articles. Results show that coverage rates of HIV/AIDS in newspapers remained low, with only about three articles published per newspaper per year between 2000 and 2010. The sources focused primarily on prevention methods (23.7%), development of a cure or vaccine (21.2%), and education and awareness (17.2%). The HIV/AIDS-related topic covered in an article varied significantly depending on scope (national vs. local) of the newspaper ($\chi^2 = 130.37, p < 0.001$) and article type ($\chi^2 = 455.72, p < 0.001$). Totally, more articles were classified as positive than negative from 2002 to 2010. Findings indicate that the HIV/AIDS news-reporting pattern has shifted in the past decade, with more news stories disclosing information about prevention or treatment. However, coverage of HIV/AIDS remains insufficient. Enhancing collaboration between health educators and media sources can be an important strategy in disseminating HIV/AIDS knowledge.

Keywords

HIV/AIDS; newspapers; China; coverage

Introduction

In modern societies, mass media are often used to shape public perceptions, attitudes and opinions. In the realm of HIV/AIDS, mass media have been used to educate the populace regarding stigma and discrimination, for example, in the USA (Brimlow, Cook, & Seaton, 2003) and some countries in Africa (Farr, Witte, Jarato, & Menard, 2005; Karlyn, 2001; Katz, 2006) and Latin America (Bertrand & Anhang, 2006). Mass media in China play a critical role in disseminating information about HIV/AIDS to the general public, and health

agencies use mass media to raise awareness about the disease (Li et al., 2009; Wu, Sullivan, Wang, Rotheram-Borus, & Detels, 2007). Chinese residents have been significantly more likely to obtain HIV/AIDS information from mass media sources such as newspapers and television programs than from interpersonal sources such as friends and co-workers (Li et al., 2009). Furthermore, in recent years print media sources in China have been growing in number, such that more than 1000 daily newspapers were publishing in 2005 (China Internet Information Centre, 2006). Accordingly, mass media campaigns could be used as a cost-effective strategy for changing HIV/AIDS-related attitudes and behaviors.

Comparatively, in the USA media coverage of HIV/AIDS declined from 1981 to 2002 (Brodie, Hamel, Brady, Kates, & Altman, 2004). Between 1981 and 1994, a mere 64 HIV/AIDS-related articles were published in five popular monthly magazines targeting the high-risk African-American community (Krishnan, Durrah, & Winkler, 1997). Although HIV/AIDS coverage increased substantially in the Chinese media between 1995 and 2001, nevertheless, it accounted for less than 4% of all coverage (Li et al., 2009). One longitudinal study examining coverage of HIV/AIDS in the *People's Daily* from 1986 to 2002 found that the publication (an official newspaper of the Communist Party of China) obscured the epidemic and presented it as an innocuous social problem (Dong, Chang, & Chen, 2008).

Previous studies have described how China's mass media portray HIV/AIDS in general (Bu & Liu, 2004; Li & Zhou, 2005) yet, no study has examined changes in patterns of HIV/AIDS reporting, if any, over time. The present study aims to describe and examine newspaper coverage of HIV/AIDS in China over an 11-year period, from 2000 to 2010.

Methods

Data sources

Since 2000, most Chinese newspapers have been indexed in the China Core Newspapers Database (<http://www.cnki.net>). We searched the database for news articles published from 2000 to 2010 using two key terms: *aizibing* (AIDS) and HIV (in English). We identified a total of 3648 articles.

Coding schemes and procedures

We first coded all articles based on (1) publication date, (2) name of the publication, (3) scope of the publication (national vs. local), and (4) article type (e.g., news story, editorial and letter). We subsequently coded all articles based on topic covered: (1) statistics, (2) basic and clinical science, (3) cure/vaccine, (4) modes of transmission and risks, (5) prevention methods, (6) education and awareness, (7) policy and economic aspects, and (8) people living with HIV/AIDS (PLWHA) (including celebrities). Finally, the tone of the articles was classified as: (1) positive (e.g., expressing care and/or sympathy for people living with the disease), (2) negative (e.g., asserting that HIV/AIDS is a form of punishment for evil behaviors), or (3) balanced (blending positivity and negativity).

All articles were reviewed and coded by two individuals (JLG and PPZ). To ensure the integrity of the coding process, we randomly selected 5% of articles ($n = 182$) to assess intercoder reliability using a Kappa statistic. The median value of κ across the coded

variables was 0.96 (topic: 0.97, type: 0.98, tone: 0.93, respectively), indicating high intercoder reliability (Fleiss, Levin, & Paik, 2003). Any disagreements between the two reviewers were settled by a third individual who reviewed their assessments and made a final determination.

Analytic strategies

Chi-square statistics were used to determine associations between categorical variables. For significant associations we used standardized residuals to assess the results. Standardized residuals larger than two indicated substantial differences between the observed value and expected value, resulting in a significant Chi-square test result (Harris, Shelton, Moreland-Russell, & Luke, 2010). In addition, Poisson heterogeneity tests were used to test variations in the number of articles published each year (Armitage, Berry, & Matthews, 2002).

Results

As shown in Table 1, a total of 3648 articles HIV/AIDS-related were published in 117 newspapers between 2000 and 2010. We found a statistically significant difference in the number of articles published by year ($p < 0.001$). For each topic, there was a significant difference in the number of articles published by year ($p < 0.001$). Similarly, we found a significant difference in the number of articles published by month ($p < 0.001$), with more than 20% of all articles published in December and 16.9% in November (Figure 1).

Of the 3648 articles, we found 2233 news stories (61.2%), 940 editorials (25.8%), and 475 letters to the editor (13.0%). We found a significant association between topic and article type ($\chi^2 = 455.716$, $df = 14$, $p < 0.001$). The distribution of topics among each type of article is shown in Table 2.

A total of 522 articles (14.3%) were published on the newspaper's front page, of which 26.1% focused on prevention methods and 21.8% on education and awareness. Overall, 2718 articles (74.5%) were featured in national newspapers and 930 (25.5%) in local newspapers. National newspaper articles tended to report more on the topics of cure/vaccine (24.1%) and policy and economic aspects (15.8%), whereas articles in local newspapers reported more on prevention methods (32.8%) and education and awareness (21.8%).

We classified 299 articles as negative in tone (8.2%), 2451 as balanced (67.7%) and 898 as positive (24.6%). The proportion of articles that were balanced did not change significantly across the decade. Prior to 2002, the proportion of negative articles exceeded that of positive articles. From 2002 to 2010, however, we found that more articles published were positive than negative in tone (Figure 2).

Discussion

Mass media typically serve as a major source of HIV/AIDS information for the public. However, coverage rates have been relatively low. In the USA, HIV/AIDS failed to garner more than 5% of media coverage in any given year from 1981 to 2002 (Brodie et al., 2004). Our findings indicate that an average of just three articles per newspaper were published

each year from 2000 to 2010. Furthermore, coverage generally has reflected key events that have occurred in the history of the HIV/AIDS epidemic (Brodie et al., 2004). As government-directed prevention efforts became more proactive with the announcement of the “Four Frees and One Care” policy in 2003 (Sheng & Cao, 2008) and the creation of the State Council AIDS Working Committee Office in 2004 (Wu et al., 2007), the number of published articles increased from 320 in 2003 to 541 in 2004. The number of articles peaked in 2006, coinciding with the State Council’s enactment of new HIV/AIDS regulations and a second 5-year plan. However, most articles were published around World AIDS Day, and only 14.3% were front-page publications, suggesting general indifference in the mass media toward the issue of HIV/AIDS.

One of the crucial roles of mass media as it related to HIV/AIDS is to promote behavioral change to reduce the risk of transmission. Our findings reveal that Chinese newspapers focused primarily on prevention methods, education and awareness, and the development of a cure or vaccine, which is consistent with findings from previous studies (Aloisi & Ippolito, 2001; Krishnan et al., 1997; Pitts & Jackson, 1989). The HIV/AIDS news-reporting pattern shifted drastically in the past decade, as prior to 2000 nearly 90% of all HIV/AIDS-related news failed to disclose any information about prevention or treatment (Dong et al., 2008). However, from the perspective of health education, dissemination of knowledge concerning modes of transmission and risks carries considerable public health significance. The lack of coverage of HIV/AIDS transmission may have been attributable to journalists’ unfamiliarity with the HIV/AIDS scientific literature (Martinez-Cajas, Invernizzi, Ntemgwa, Schader, & Wainberg, 2008). Predictably, some newspapers portrayed AIDS as the result of shameful sexual acts and drug abuse (Clarke, 1992) and a violent and aggressive disease (Clarke, McLellan, & Hoffman-Goetz, 2006), sometimes even portraying PLWHA as examples of moral failure (Jihad, 2011). The primary modes of HIV transmission in the country are prostitution and drug abuse (Smolinski, Hamburg, & Lederberg, 2003), both of which are illegal in China.

The difference in topic covered by national vs. local publications may reflect the central government’s concern for centralized regulations and coordinated control actions, while local governments were more likely concerned with programs and campaigns intended to prevent HIV/AIDS (Sheng & Cao, 2008; Wu et al., 2007).

Overall, 24.6% of HIV-related articles in Chinese newspaper were positive in tone, a rate lower than in the USA (Brodie et al., 2004). However, the percentage of positive articles increased (though with some fluctuation) from 2000 to 2010, which suggests that the public and the media are growing increasingly knowledgeable about and/or sensitive to HIV/AIDS-related issues.

Conclusions and implications

Our findings indicate that the HIV/AIDS news-reporting pattern has shifted during the past decade, with more news stories disclosing information about prevention and treatment. Coverage, however, remains insufficient. Enhancing collaboration between health educators and the media can be an important strategy in disseminating HIV/AIDS knowledge.

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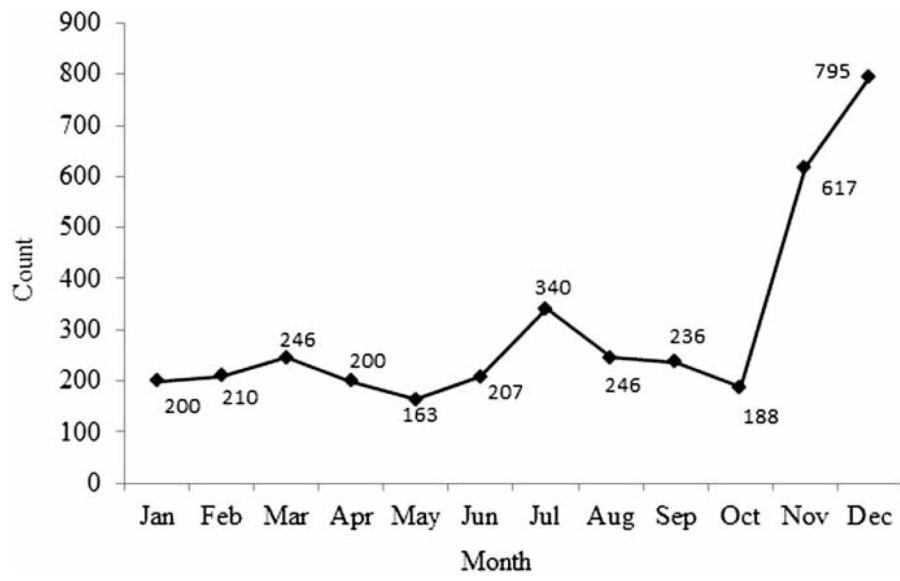


Figure 1. Distribution of HIV/AIDS articles from January and December in Chinese newspaper.

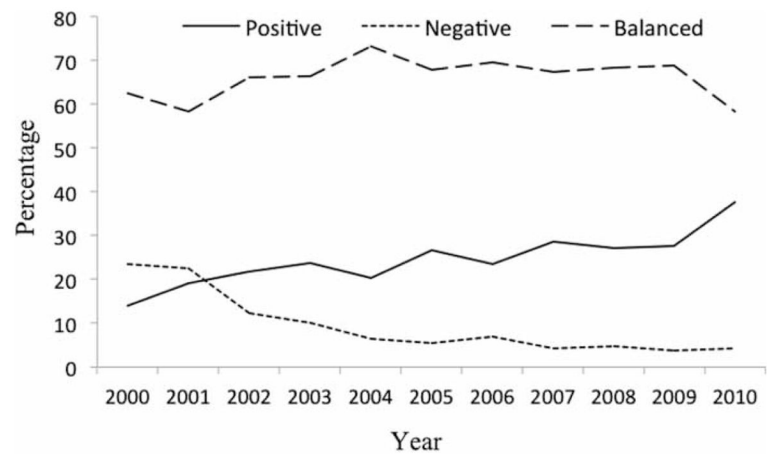


Figure 2. Trends of HIV/AIDS article tone from 2000 to 2010 in Chinese newspaper.

Table 1

Articles by HIV/AIDS-related content/topic published from 2000 to 2010 in China [*n* (%)].

Topic	Year											Total
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	
Statistics	27 (8.4)	34 (10.6)	21 (6.5)	26 (8.1)	41 (12.7)	24 (7.5)	46 (14.3)	29 (9.0)	26 (8.1)	27 (8.4)	21 (6.5)	322 (8.8)
Basic or clinical science	13 (4.0)	19 (5.9)	30 (9.3)	36 (11.2)	22 (6.8)	43 (13.4)	59 (18.3)	37 (11.5)	20 (6.2)	26 (8.1)	17 (5.3)	322 (8.8)
Cure or vaccine	32 (4.1)	37 (4.8)	81 (10.5)	76 (9.8)	99 (12.8)	86 (11.1)	117 (15.1)	84 (10.8)	43 (5.5)	68 (8.8)	52 (6.7)	775 (21.2)
Transmission and risk	17 (5.6)	18 (6.0)	16 (5.3)	24 (7.9)	41 (13.6)	42 (13.9)	38 (12.6)	37 (12.3)	31 (10.3)	19 (6.3)	19 (6.3)	302 (8.3)
Prevention	31 (3.6)	50 (5.8)	51 (5.9)	64 (7.4)	159 (18.4)	115 (13.3)	120 (13.9)	116 (13.4)	67 (7.7)	46 (5.3)	46 (5.3)	865 (23.7)
Education and awareness	41 (6.5)	37 (5.9)	33 (5.2)	57 (9.1)	105 (16.7)	67 (10.7)	95 (15.1)	70 (11.1)	52 (8.3)	33 (5.2)	39 (6.2)	629 (17.2)
Policy and economics	11 (4.2)	7 (2.6)	12 (4.5)	21 (7.9)	46 (17.4)	34 (12.8)	66 (24.9)	23 (8.7)	10 (3.8)	11 (4.2)	24 (9.1)	265 (7.3)
PLWHAs (including celebrities)	6 (3.6)	6 (3.6)	9 (5.4)	16 (9.5)	28 (16.7)	22 (13.1)	18 (10.7)	22 (13.1)	6 (3.6)	13 (7.7)	22 (13.1)	168 (4.6)
Total	178 (4.9)	208 (5.7)	253 (6.9)	320 (8.8)	541 (14.8)	433 (11.9)	559 (15.3)	418 (11.5)	255 (7.0)	243 (6.7)	240 (6.6)	3648 (100)

Table 2

Distribution of content/topics by article type.

Topic	Article type (%)		
	News stories	Editorials	Letters
Statistics	270 (12.1)	38 (4.0)	14 (2.9)
Basic or clinical science	223 (10.0)	39 (4.1)	60 (12.6)
Cure or vaccine	471 (21.1)	189 (20.1)	115 (24.2)
Transmission and risk	144 (6.5)	100 (10.7)	58 (12.2)
Prevention	443 (19.8)	304 (32.3)	118 (24.8)
Education and awareness	496 (22.2)	92 (9.8)	41 (8.6)
Policy and economics	156 (7.0)	58 (6.2)	51 (10.7)
PLWHAs (including celebrities)	30 (1.3)	120 (12.8)	18 (3.8)