How Complementary and Alternative Medicine (CAM) is promoted in Bangladesh?: A Critical Evaluation of the Advertisements Published in Local Newspapers

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Citation

Abstract
Majority of population are still using complementary and alternative medicine (CAM) in Bangladesh. Many of the CAM providers are engaged in the advertising of various remedial methods for numerous diseases in the local newspapers of the country. This exploratory study investigated such advertisements collected from some renowned newspapers of Bangladesh. Most of the advertisements in those newspapers were found to focus mainly on the conditions related to sex and sexuality. Other major manifestations reported were related to psychological, cancers related and gynecological issues. Exaggerated and incongruent treatment claims were very common with 100% money-back treatment guarantee in some advertisements. Homeopathy system claimed to treat all possible cancers of human being. Advertisements of CAM in the newspapers of Bangladesh appear to be misleading, which may have potentials to misdirect patients from seeking better treatment options for their ailments.

INTRODUCTION
Alternative medicine refers to health practices, approaches, knowledge and beliefs incorporating plant, animal and mineral based medicines, spiritual therapies, manual techniques and exercises, applied singularly or in combination to treat, diagnose and prevent illnesses or maintain well-being. The terms complementary/alternative/non-conventional medicine are used interchangeably with traditional medicine in some countries (1). The use of complementary and alternative medicine (CAM) among western society is high, and its use is increasing worldwide (2,3,4). Over the last decade, the number of products and the amount of advertising appeared to be increased dramatically in the USA (5).

In Bangladesh, CAM has long been practiced and it is estimated that 70-75% population of the country still use traditional medicine for management of their health problems of various kinds. Broadly speaking, four types of CAM are primarily practiced in Bangladesh namely herbal, homeopathy, religious and magical methods. Both registered and unregistered (locally known as kabiraj) herbal practitioners are practicing in the country at present (6). The herbal method of CAM mainly consists of ayurvedic and unani systems in Bangladesh. Based on the existing rich local plant diversity, the tradition of indigenous herbal medicine systems has formed a very important component of the primary healthcare system of Bangladesh (7).

Religious practitioners take recourse to incantation (tantra-mantra). The magical system of traditional medicine is led by Shamanists (locally termed as bede or ojha), astrologers and religious gurus. Despite the uses of plants, animals or other natural substances, alternative medicine of Bangladesh also includes non-material components such as sacred amulets, oral incantation, water and oil incantation, exorcism, communication with spirits and so on (8). Magical treatments, on the other hand, are based on aerobic exercise, meditation, magnet therapy, gem therapy and use of various metals. Homeopathy has long been in use due to its lower treatment cost. At present, many practitioners, from both urban and rural areas, practice homeopathy without valid registration, which encouraged its rapid spread in Bangladesh (9).

The mass media have been recognized as important sources of information for the health and medical professionals as well as for the laypersons (9). It is evidenced that aggressive advertisements of CAM on various media including
newspapers have resulted in increased sales all over the world (11). The advertisements in the newspapers promise to prevent and even cure incurable conditions—AIDS (acquired immunodeficiency syndrome), cancer, heart disease, diabetes, arthritis, multiple sclerosis and so on (12).

Promotion of different methods of CAM in the newspapers is quite common in Bangladesh. The present study was undertaken to explore the magnitude of advertisements and the diversity of information presented CAM advertisements published in the printing media of Bangladesh. This study is a unique one as no study has been carried out till date to determine the prevalence or characteristics CAM advertisements in the country. This study may be a dependable host of information required for further studies in the relevant fields.

MATERIALS AND METHODS

This was a cross sectional study of advertisements related to CAM published in the newspapers and news magazines of Bangladesh. A convenience sample of six daily newspapers and one weekly news magazine of Bengali language were taken for the study. The samples were selected based on their wide circulation and easy availability in Bangladesh. The daily newspapers were collected from the local markets and were compiled for a period of seven days (April 15-21, 2007). The weekly magazine was published during the period of March 20-26, 2007, containing 240 pages. All the newspapers were published from capital city, Dhaka. The magazine had a publication history of around 26 years in the country. Collected advertisements were sorted according to the systems of CAM. Because these advertisements were collected in a short time frame, there were some repeated advertisements found. Repeated advertisements published on the same products and by the same institutions were excluded from the study. All the advertisements collected were translated into English from Bengali before evaluation. After careful assessment, the information extracted from these advertisements were categorized and incorporated into a data form of a personal computer. Microsoft Excel XP professional edition was used for the descriptive statistical analysis.

RESULTS

Forty eight advertisements were collected from the daily newspapers while the rests were extracted from the selected news magazine. Finally, a total of 69 advertisements were analysed during the study period for necessary information. Of the ads, majority (n=35) of the advertisements were related to religious therapy, which was followed by herbal medicine (n=20). Magical and homeopathy remedies accounted for relatively small number of advertisements as shown in Table 1.

Figure 1
Table 1: Distribution of Ads.

<table>
<thead>
<tr>
<th>CAM systems</th>
<th>No. of Ads</th>
</tr>
</thead>
<tbody>
<tr>
<td>Herbal</td>
<td>20</td>
</tr>
<tr>
<td>Homeopathy</td>
<td>5</td>
</tr>
<tr>
<td>Religious</td>
<td>35</td>
</tr>
<tr>
<td>Magical</td>
<td>9</td>
</tr>
<tr>
<td>Total</td>
<td>69</td>
</tr>
</tbody>
</table>

From these advertisements, 125 diseases and/or symptoms were identified. Majority (28.8%) of the ads demonstrated various manifestations related to sex and sexuality. Other significant conditions reported were 17.6% psychological, 11.2% cancer related and 8% gynecological. Comparatively less common manifestations found were related to gastrointestinal tract, respiratory tract, skin, microbial invasions and sexually transmitted diseases (STDs). A brief illustration of all these diseases/symptoms has been presented in the Table 2.

Figure 2
Table 2: Summary of the disease / symptoms.

<table>
<thead>
<tr>
<th>Diseases/Symptoms</th>
<th>No.</th>
<th>(%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sex and Sexuality</td>
<td>36</td>
<td>28.8</td>
</tr>
<tr>
<td>Psychological</td>
<td>22</td>
<td>17.6</td>
</tr>
<tr>
<td>Cancer related</td>
<td>14</td>
<td>11.2</td>
</tr>
<tr>
<td>Gynecological</td>
<td>10</td>
<td>8.0</td>
</tr>
<tr>
<td>Gastrointestinal</td>
<td>6</td>
<td>4.8</td>
</tr>
<tr>
<td>Respiratory systems</td>
<td>6</td>
<td>4.8</td>
</tr>
<tr>
<td>Skin</td>
<td>5</td>
<td>4.0</td>
</tr>
<tr>
<td>Microbial Infections</td>
<td>5</td>
<td>4.0</td>
</tr>
<tr>
<td>STDs</td>
<td>2</td>
<td>1.6</td>
</tr>
<tr>
<td>Other Illnesses</td>
<td>19</td>
<td>15.2</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>125</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

In the study, a number of treatment claims, disease conditions and relevant remedies were extracted from the
sample advertisements during the study period. A brief description of the outcomes has been given below as per the individual system of CAM.

Herbal System: As stated before, the herbal system mainly comprises of Ayurvedic and Unani system of CAM in Bangladesh. Advertisements on these systems mostly accounted for the conditions related to sex and sexuality. Along with the sexual manifestations, treatments of a number of unusual sexual practices (paraphilias) were also claimed in the advertisements of herbal system.

Gynecological conditions were the second most prevalent manifestations in these advertisements. In comparison to other systems, a small number of diseases or symptoms of psychological origin were found in the herbal advertisements. Treatments of viral hepatitis, diabetes, paralysis, gangrene, syphilis, gonorhea and obesity were also included in these advertisements. Claims on enlargement and beautification of female breasts were quite common in most of the advertisements. The most commonly cited medicament in the herbal advertisements was some all-in-one power oil found in various brand names such as Special HP Power Oil, Special SP Genital and Erection power Message Oil. Other remedies offered in these advertisements include various tablets, creams and lotions prepared from assorted herbs and plants. Deer mask (locally known as kasturi) was the only animal origin medicament found in these advertisements. This was stated to be a powerful drug for enhancing sexual power of male. A concise list of various manifestations of herbal and other systems has been depicted in the Table 3.

Homeopathy: The most prevalent disease conditions dug out from the advertisements of homeopathy system were various types of cancers and tumors. In fact, treatment of cancer was not found in the advertisements of other systems. There were no manifestations of psychological, gynecological and sexually transmitted diseases presented in the advertisements. Treatments of only a few cases gastrointestinal tract, microbial infections and sex and sexuality related conditions were mentioned in the advertisements. Like the advertisements of herbal system, enhancement and modification of female breasts were also claimed the advertisements of homeopathy. Homeopathic medicines were found to be prepared from herbs and stone extracts as per the guidelines of the American Homeopathy Pharmacopoeia. Computer was used in all stages of treatments including diagnosis, selection of medications and to determining the actual time of recovery from disease as mentioned in all the advertisements of homeopathy.

Religious System: Advertisements on religious system mostly focused various psychological conditions and their treatments. Other manifestations were related to sex and sexuality, gastrointestinal tract and gynecological problems. Conditions like paralysis, jaundice, loss of fairness of both male and female and influence of black magic were also
found in the advertisements of religious system. According to the advertisements, influence of jinn (also termed as ‘bad air’ or ‘bad spirits’) and black magic was the chief causative agents of almost all the bodily complications. Mode of treatments as mentioned in the advertisements of religious systems were based on spirituality, incantations, celestial communications, exorcisms, use of incanted rose-water as mirror to witness hidden physical evils, jinn submission and manipulation, supernatural power, recitation of the holy religious books, combination of supernatural power and jinn manipulation, water and food incantations, and body-shield amulets.

Magical System: Like the religious system, advertisements of magical system also focused on wide-ranging psychological manifestations. No conditions on gynecological complications, gastrointestinal problems, skin or microbial origin were found in these advertisements. Along with the psychological problems, sex and sexuality related conditions were reported in the advertisements. Diagnosis of diseases in magical system was often done by observing the face or photo of the sufferers as mentioned in the advertisements. Treatments options in magical system were astrology, gems, ash prepared from various gems, Kohiinoor (a precious stone) power, hypnotism, touch therapy, meditation, life-shining method, aerobic exercise, magnet therapy and reiki. In addition to the description of various disease conditions and associated treatment options, some other features of the advertisements were pointed out during the study period including guaranteed treatment claims, use of pictures in the advertisements, and choice of words and mode of shipment of remedies to the patients by using general post or international courier services. There was at least one set of apparently obscene photo endorsed in all the advertisements of herbal system.

DISCUSSION
In this descriptive study, highest number of advertisements was found on religious system followed by the herbal system, which includes the Ayurvedic and the Unani systems. Of the total identified diseases or symptoms, majority was related to sex and sexuality. The second most prevalent conditions found were of psychological origin, which were mostly extracted from the advertisements of religious and magical systems. Relatively less number of manifestations was recorded involving gastrointestinal tract, respiratory systems, skin and microbial diseases.

The study showed that the highest number conditions related to sex and sexuality was found in the advertisements of the herbal system compared to the others. Treatment offers for a number of unusual sexual practices (paraphilias) were also stated in the advertisements of herbal system. There were no surgical procedures mentioned in any of the advertisements of the herbal system. Interestingly, many of the ads on herbal system offered beautification and enlargement of female breasts. But no procedures or medicaments for this were mentioned. The most cited medicament in the herbal advertisements was a special massage oil. But no specific active ingredient of this power oil was listed anywhere in the advertisements.

It is very important to note that advertisements on homeopathy system concentrated on diverse types of cancers and tumors of human subjects. There were no manifestations of psychological, gynecological and sexually transmitted diseases presented in these advertisements. Like the herbal system, enhancement and modification of female breasts were also found in all the advertisements of homeopathy but no specific medicaments or procedures were mentioned in this regard. It needs to mention here that there was a little incongruity observed in the description of homeopathic medicines in all the advertisements. The advertisements demonstrated that medicines were formulated from the herbs collected from the Amazon forest and stone extracts obtained from the Himalayan range by following the guidelines of the American Homeopathy Pharmacopoeia. It sounds like these medicines were from the herbal systems. There were some exaggerated claims about the use of computer in the advertisements on homeopathy. For example, according to the advertisements, computer was variously used in all stages of treatments, particularly for the diagnosis, selecting medications and very interestingly, to determine the actual time of recovery from diseases. But no statements were found about how actually computer was used to perform these actions.

Both the religious and the magical systems had similarity in relation to the presentation of a variety of psychological conditions and their treatments in the respective advertisements. It was widely promoted in the advertisements of religious system that influence of jinn was mainly responsible for most of the bodily complications. Accordingly, treatments were aimed mainly to dispel jinn or the bad spirits taking help of spirituality, incantations, jinn manipulation, amulets and recitation from holy religious books. But there were a number of conditions like
impotence, loss of libido, thinning of semen, nocturnal emission, infertility, irregular menstruation, white discharge, paralysis, jaundice and gastric ulcers, which did not match with religious dogma of illness according to the advertisements. Interestingly, these manifestations were also found to be treated with the same religious practices as mentioned earlier. The advertisements on the magical system demonstrated that diagnosis of diseases was often carried out by observing the face or photo the patient. Obviously this type of statement is nothing but extreme exaggeration used only to allure the prospective clients.

Quackery in the field of CAM is quite common in Bangladesh. Even a layman without proper know-how can become a traditional CAM practitioner as a mean of additional earnings (12). This type of practice may pose serious threats to public health often by erroneous diagnosis and incorrect treatment using wrong or fake medications (11).

It is documented that the advertising of sex related therapies is widespread in respectable magazines, newspapers and other forms of media around the world (13). We also found highest number of conditions in the advertisements related to sex and sexuality in the present study. Many of those manifestations were nothing but common myths or beliefs on sex and sexuality such as nocturnal emission, side effects of masturbation, deformity of penis, thinning of semen and others. It is true that sexual performance in men carries an identity and a sense of self-esteem in most of the societies of the world (14). This may be a potential reason for the ubiquitous prevalence of sex related conditions published in these advertisements. Moreover, it was found in one study that CAM practitioners in Bangladesh mostly focused on treatment of sexual dysfunction and other related illnesses or so-called symptoms. Main treatments of these conditions were based on the herbal remedies, often combined with homeopathic and other methods, which are primarily based on common misunderstandings and myths (15). Further, the predominant anxieties of male related to sex and sexuality are mostly of psychosexual nature (16). In addition to various sex and sexual related symptoms, rapid ejaculation is another health concern of male in Bangladesh as reported in one study (17), which needs proper diagnosis and effective counseling or therapeutic intervention to resolve it.

Study indicated that the anxiety related to sex and sexuality may be reinforced by ignorant individuals and malpractices of quacks (18). Our study found significant presence of sex and sexuality myths and prejudices in those advertisements published in the newspapers of Bangladesh. One awesome finding of our study was the assurance of unbeaten treatment success. All the advertisements evaluated were found to provide 100% money-back guarantee often with written agreements in registered stamp paper. While there is hardly any dependable scientific evidence or has dubious supports in favor of homeopathy to treat cancers (19), the advertisements on homeopathy in the present study claimed to treat all the possible cancers of human being with 100% assurance of treatment success. Even the magico-religious systems also guaranteed 100% challenging solution within one hour to seven days. While the modern medical system fails to give any pledge of 100% treatment success, these overconfident claims of the various systems of CAM in Bangladesh remain questionable.

Traditionally, many of the CAM practitioners in Bangladesh are engaged in treatments of various common physical and psychological diseases of common mass. Evidence suggests that spiritual treatments can provide some curative and restorative benefits in emotional distress and minor mental illnesses (20). Because of easy availability, many people in Bangladesh seek treatments from spiritual healers for minor ailments (21). This fact may be a substantial basis for the enormous psychological manifestations reported from the advertisements of the magico-religious systems. But the advertisements on the magico-religious systems demonstrated some crucial psychological conditions such as mental retardation, mania, memory loss, stammering, infertility and detoxification of drug addicts, which clearly require some long term medical interventions. Some incomprehensible treatment options, for example, light-shining methods, body-shield amulets, were reported from the advertisements of the magical system. Of the CAM institutions identified from the advertisements; only a few stated “registered by the government of Bangladesh” but none provided any registration number or any such identification marks in their advertisements.

Along with the above diseases and therapies, at least one set of apparently obscene (considering the existing social norms and moral value of decency in Bangladesh) human photo was observed in all the advertisements of the herbal system. Apart from these, choice and use of words in these advertisements were provoking and appealing in most of the cases. One such example from the herbal system can cited for instance as follows:

“A single course (seven days) use of the special massage oil
can make the male genitalia as strong as iron rod and as thick as the wrist. It causes instant erection of the genitalia to defeat the sexual partners easily. Even a 60 years old man can be as young as 25 years and will get complete satisfaction in coitus. This power oil provides the stamina for love making several times a day. Both married and unmarried people can apply it. This remedy is tested and appreciated by millions of people. This is entirely devoid of side-effects and makes the skin of genitalia fairer. Success is 100% guaranteed.”

Another enthralling finding of the study was the shipment of remedies to the patients. Amazingly, all the advertisements invited the soon-to-be patients to send answers of some private/secret questions depicted in these advertisements via phone or posted mail. They were assured that medications will be dispatched to them after diagnosing the diseases from the answers they supplied. No face-to-face visit was required to determine the diseases of the patients! For expatriate patients, international courier services such as DHL and FedEx were mostly used for the shipment of therapies and the treatment guarantee cards.

Similar to our study results, exaggerated and objectionable advertisements of CAM were also reported from other Asian countries. The mostly found medical treatment advertisements include Gonorrhea, Chancroid, and other STDs, psoriasis, AIDS, cancer, epilepsy, hepatitis B, Vitiligo, leucoderma, paralysis, sexual impotence. In addition, these advertisements also contained obscene, pornographic, superstitious, or vulgar contents (30-32).

In recent years, excessive commercialization of the health industry worldwide has left people puzzled as to what is true and what is false. Misleading information has been flooding into newspapers and magazines, and exaggerated advertisements can be seen everywhere (33). In most of the cases, claims of CAM including remarkable healing powers are often not supported by reliable evidence (11, 12). In an advertisement from Indian, some herbal company advertised pills that claimed would “change fetal sex”. Another advertisement CAM from the same country advertised a 100 day cure for AIDS for $200 (33). The Federal Trade Commission (USA) once evaluated 300 advertisements from various media including magazines and newspapers. The report found 55% of ads with a claim very likely to be false or lacking substantiation. Consumer testimonials and before-and-after photos were common in weight loss promotions (3).

No doubt that CAM have good values in treating many diseases, which can save lives of many, particularly in the developing countries (11, 27). In the country like Bangladesh, CAM can play a pivotal role for the country’s ever poor public health sector. Amazingly, we found no evidences to support the therapeutic claims presented in those CAM advertisements published in the newspapers of Bangladesh. Also, almost all of the claims found in the present study were either sheer exaggeration or lacking scientific evidences. Moreover, it has been seen that the media and other unregulated sources of information on CAM have an undue influence on decision making process in this field (28, 29). The study found that about 52% of the CAM users were either advised by somebody or were influenced by advertisements in the local newspapers or magazines to try the alternate treatment modality (2). No doubt that patients are vulnerable to abuse from unethical sales techniques and products advertised in the newspapers (30).

In order to protect patients from health frauds, the US-FDA has sorted out some red flags to be avoided. These include: claims the product works by a secret formula, publicity only in the pages of magazines and in newspaper and other unsubstantial media, claims the product is an amazing or miraculous breakthrough, promises of a quick, painless, guaranteed cure and testimonials from satisfied customers (4). Unfortunately, most of these were found in the advertisements of CAM in Bangladesh.

LIMITATIONS OF THE STUDY

Several limitations have been encountered in the present study. Being cross-sectional in nature, the study design fails to measure any concrete outcomes or any cause and effect. The sample used in the study does not represent the whole population as it has been selected through non-probabilistic method of sampling. There is a potential for selection bias in the sample due to non-randomized sample selection process. Due to unavailability of substantial information on the present topic, some newspaper reports and web based documents were used as main sources of information in some instances, which may lack in considerable scientific rigor.

CONCLUSION

The study reported many exaggerated and misleading treatment claims and medications in CAM advertisements published in the local newspapers of Bangladesh, which may have potentials for misleading the patients to seek better
treatment options for their ailments. Additional comprehensive studies are required to determine actual prevalence of such promotional activities and their ultimate influences on the public health sector including treatment seeking behavior and morbidity of general population.

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