Antibiomedicine belief and integrative health seeking in Taiwan

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Abstract

The newly emerged concept of integrative medicine may provoke a closer investigation into the pattern of biomedicine use in the context of medical pluralism. In this study, I propose two concepts to examine the complicated cognitive and behavioural responses to biomedicine (Western medicine, xi-yi) in relation to the use of non-biomedical therapies in Taiwan, a society with renowned medical pluralism. Data came from a nation-wide telephone survey conducted during September 2002 among community-resident population aged 20 and older. The sample includes 1517 respondents. The first concept—antibiomedicine—includes three indicators to measure an individual’s negative stance on xi-yi: overall competence, capability to cure from within, and side effects. Combined, these three indicators were further constructed into a single composite index: antibiomedicine beliefs. Integrative health seeking tackled two aspects of health seeking: selective use and adaptive use. The former concerns particularly the use of specific ingredients of biomedicine. In this study, emphasis was placed on the diagnosis versus treatment of xi-yi. The latter was focussed on the strategic uses of xi-yi in the face of its limitation and incompetence. Three types of adaptive health use were identified: alternative type, complementary type, and exclusive type. Results of the analyses indicate that antibiomedicine belief held explanatory potential to selective use and adaptive use of xi-yi. The study sheds light on further exploring the blending of health-seeking practices and “hybrid” medicine. It is suggested that novel explanatory constructs and more sophisticated study designs should be developed to articulate the sequential of pluralistic health-seeking process.

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Keywords: Antibiomedicine belief; Integrative health seeking; Complementary/alternative medicine; Taiwan

Introduction

Medical pluralism is a universal phenomenon. It is also universal that at least, in most of the modernized, medically pluralistic societies, biomedicine usually occupies a dominant and hegemonic status, enjoying both structural superiority and functional strength (Lee, 1982). This article is an effort in response to the recent revival of complementary and alternative medicine (CAM) and a conceptual advance to integrative medicine (Easthope, 2003). My attempt is to develop a preliminary framework to depict the characteristic feature and magnitude of “integrative health seeking” in Taiwan in the context of medical pluralism and biomedicine’s dominance. I also propose to construct a composite measurement to articulate the image and evaluative reaction of the lay public to biomedicine.

The blending the use of diagnostic and therapeutic procedures derived from different medical traditions is an underlying reality while addressing medical
pluralism. In this article, by taking into account definitions of Easthope (2003, p. 2) and NCCAM (2003), I refer to integrative use of biomedicine as any type of combining components of biomedicine with non-biomedicine to treat illness. In this regard, non-orthodox therapies are deemed simply medical care options without any implication of political jurisdiction.

Unlike most of the Western societies, Taiwan’s medical pluralism is characterized by a dual system, two co-existing great medical traditions: traditional Chinese medicine (zhong-yi) and biomedicine or Western medicine (xi-yi). But like societies all over the world, within this dual system, xi-yi still holds the ultimate dominance, although both are granted medical professions (Kleinman, 1980) and included in the National Health Insurance. A recent survey among the general population on CAM utilization in Taiwan indicates that in the previous year 75.5% of the respondents had used at least one modality of CAM (non-Western medicine) for treating illness or alleviating symptoms (not for preventing or promoting health). Among the 19 therapeutic modalities reported, it is interesting to note that certain “unconventional” modalities such as health foods (used by 24.3% respondents), organic diet (19.5%), and aromatherapy (15.7%) have become popular (even foods (used by 24.3% respondents), organic diet (19.5%), and aromatherapy (15.7%) have become popular (even acupuncture was used by only 17.1% of the respondents) (Lew-Ting, 2003). These imported modalities that were introduced in the last two to three decades seemed to have been appreciated by the lay community, in much the same way as Chinese herbal medicine or acupuncture have been recognized and adopted in the West. In summary, medical pluralism in Taiwan keeps evolving. The rapid growth of therapeutic modalities in variety and quantity in Taiwan provides a unique scenario to tackle the phenomenon of integrative health seeking. By doing this, an investigation into varying levels of deviation from orthodox use of xi-yi also becomes possible.

Methods

Data are from the “Use of Complementary and Alternative Medicine Survey” conducted during September 2002. Random-digit dialing technique was used to sample households all over the Taiwan area. Within each household the adult who first answered the phone and whose age was 20–70 was the potential respondent. Data from 1517 participants who made valid responses to the questionnaire items were collected. The response rate was 87.1%.

Sample

Of the 1517 respondents, the proportion of women (55.2%) was 10% greater than that of men (44.8%). The mean age was 41.4 yr. Most (71.7%) respondents had achieved at least a high school educational level. More than two-fifth (41.1%) resided in areas with low level of urbanization (townships or villages) and about one-fifth (19.6%) in most urbanized areas (Taipei or Kaohsiung metropolitan areas). Chi-square test for goodness-of-fit shows that the sample and the general population were similar in the distribution of residential areas and therefore ascertains the representativeness of the sample.

Instrument

The preliminary version of the interview questionnaire was developed based on the CAM utilization literature, particularly on population-based empirical studies (for example, Astin, 1998; Eisenberg, 1993, 1998; Siahpush, 1999). In addition, a qualitative study in a Chinese medicine clinic was carried out to in-depth interview 10 patients to obtain laypersons’ attitudes towards xi-yi versus CAM therapies, and their behavioural responses to the diversified medical care choices. The results of the qualitative research were used to specify and articulate the more subtle features of strategic management of health seeking. Finally, a pilot telephone survey of 40 citizens was accomplished to further clarify and ensure the comprehensibility and relevance of interview items. A special attention was paid to the precise use of local languages or dialects for different CAM therapies.

The final version of questionnaire includes the following areas of core questions: CAM use, attitudes towards and use of biomedicine, beliefs in medical technology, etiological orientation, beliefs in the nature of therapeutic effects, health status, and health information exposure. The present article is particularly concerned with the participants’ negative perceptions of biomedicine (xi-yi), and its relevance to integrative use of xi-yi.

Measurements

Antibiomedicine belief

This is a composite measure constructed by three indicators:

1. Confidence in overall competence of xi-yi: “Of all the diseases that human beings may suffer from, how many do you think xi-yi can cure?”
2. Attitude towards xi-yi’s capability to cure from within: “How much do you agree that xi-yi can only deal with the symptom rather than the cause of the disease?”
3. Anxiety about xi-yi’s side effects: “Have you ever avoided visiting xi-yi due to concern about its side effects?”

The above three indicators were summed up to measure the extent to which an individual held negative responses to biomedicine.
Integrative health seeking

Two aspects of integrative health seeking are examined in this study:

1. Selective use: Concerning the use of specific ingredients of xi-yi. Here I emphasize the differentiation of biomedical diagnosis from its treatment: “Have you ever visited xi-yi only for diagnosis and then use other types of therapies to treat illness?”

2. Adaptive use: Concerning strategic uses of biomedical in the face of its limitations and incompetence: “What if you had diseases which you think xi-yi was not able to cure? Would you still visit xi-yi?” A “no” response was deemed as alternative type while xi-yi was no longer adopted and was replaced by other therapeutic modalities. However, a “yes” response may include two possibilities: the exclusive type—the xi-yi was still the only choice made by the respondents, or the complementary type—not only xi-yi but also other modalities were additionally used.

Data analysis: The data analysis is carried out through the following steps:

1. Describe the respondents’ stance on the three features of xi-yi and, based on which, construct antibiomedicine index.
2. Delineate the distribution of integrative health seeking, including selective and adaptive use of xi-yi.
3. Explore the relationships between antibiomedicine belief and integrative health seeking.
4. Profile sociodemographic characteristics of individuals who held antibiomedicine belief and who engage in integrative health seeking.

Results

Antibiomedicine belief

As presented in Table 1, the respondents’ overall confidence in xi-yi’s competency was strong; more than half of them asserted that xi-yi could cure at least 70–80% of human diseases. However, xi-yi’s capacity to treat from the very origin, i.e., the causes of the disease, was less recognized by the respondents. More than half (63.3%) considered xi-yi could only deal with the symptoms rather than the causes of the diseases. Furthermore, while the negative aspect of xi-yi’s treatment—side effects—was addressed, more than one-third (15.0% always and 19.8% sometimes) avoided visiting xi-yi simply for the sake of side effects.

To measure one’s overall negative stance on xi-yi, the above three variables were dichotomized to binary indicators and were further constructed into a single index with a range of 0–3. The increase in score represents a stronger antibiomedicine belief. The distribution of antibiomedicine belief index is presented in Table 1.

Integrative health seeking

Selective use of xi-yi was found among half (48.5%) of the respondents, who had ever requested only diagnosis from xi-yi but then turned to other therapeutic modalities for treatment (Table 2). Adaptive use, on the other hand, includes three types. Exclusive type appeared most often (38.7%), far more than complementary type (23.8%) and alternative type (21.3%).

Strong relationships were found between antibiomedicine belief and integrative health seeking. As Table 3 indicates, 54.1% of respondents with strong antibiomedicine belief were selective users, compared with weak (47.0%) and median (44.2%) groups (p = 0.003).

Antibiomedicine belief was also associated strongly with adaptive use of xi-yi (p = 0.0001). Those who held weak and median antibiomedicine beliefs (i.e., positive
to biomedicine) were less likely to be alternative type of users than were the strong-belief respondents. In contrast, a negative gradient was found between antibiomedicine belief and exclusive use. In summary, strong antibiomedicine belief led to use therapies other than \textit{xi-yi}, whether alternative or complementary type.

Table 2 shows the sociodemographic profile of respondents engaged in different types of integrative health seeking and holding different degrees of antibiomedicine beliefs. Education was the most significant determinant in differentiating belief level. A reverse relationship was found between education and antibiomedicine belief. Respondents with higher educational levels tended to hold weaker antibiomedicine belief.

On the other hand, higher educational levels led to selective use of biomedicine and exclusive use of \textit{xi-yi}. It has to be noted that respondents with only primary school education were much more likely to provide uncertain responses.

**Discussion**

Results of this study show that the general populace’s responses to biomedicine or \textit{xi-yi} in Taiwan are ambivalent and paradoxical. On the one hand they trusted its competency. On the other hand, they also recognized its limitations and, as a result, used its services selectively and adaptively. The discontent of biomedicine in relation to the use of Chinese medicine has also been observed in other Chinese societies, particularly in Hong Kong (Chan et al., 2003; Holroyd, 2002; Lam, 2001; Wong et al., 1998). It implies that although \textit{xi-yi} is deemed powerful, it brings with itself a certain quality that may jeopardize its claimed or expected competency.

**Beliefs in biomedicine and the measurement**

The measurement of antibiomedicine beliefs in this study is a tentative effort. Nevertheless, its strong relationship with selective use of biomedicine and adaptive health seeking suggests acceptable construct validity. Still, with a composite measurement based only on three indicators (competency, side-effects, and superficiality), its content validity may cause concerns. Theoretically, antibiomedicine belief should be more or less geared to cultural elements. If, for example, biomedicine has been granted a techno-science complex (Clarke, Shim, Mamo, Fosket, & Fishman, 2003), the
constellation of beliefs about this medical paradigm and the system that contains it should contain even broader worldviews with regard to control of nature, techno-science veneration, and values of life. It should also be noted that even though laypersons expressed negative reactions to biomedicine, it does not necessarily imply their overthrowing the value of this medical tradition and undermining its contributions. Nor would they fully reject its possible utility to them while confronting a health crisis. Rather, the pessimistic sentiment and the challenging attitudes reflected the general expectation of an “ideal” health care system.

**Integrative health seeking**

I have employed integrative health seeking in this study to denote any actions combining therapeutic elements by laypersons, somewhat reflecting what Adler (2001) observed “personal integrated health belief systems” among women with breast cancer. The construct, as Adler emphasized, is helpful for “the study of CAM...in which individuals combine disparate elements—from what may appear to be mutually exclusive health traditions—into a syncretic whole (Adler, 2001)”. In response to the incompetence of biomedicine, the integrative use of available therapeutic modalities is an adaptive tactic to manage health crises. In this study, only two types of integrative health care management (selective use and adaptive use) were included. A quantitative approach as presented in this paper may not be able to tackle the underlying subtlety of individuals’ integrative strategies. Nevertheless, it suggests that the integrative health seeking was widely held.

This study shows that around half (48.5%) of the respondents have had the experience of visiting xi-yi only for the purpose of diagnosis and would then seek remedial help from other therapeutic modality. This is perhaps only one among various types of selective use of biomedicine. The increased use of complementary therapies always attracts attention to the variety and amount of non-biomedicine consumed. Yet, in what way is biomedicine utilized has been much less elaborated. Similarly, while scholars have been eager to clarify whether non-orthodox therapies were consulted alternatively or complementarily (for example, Druss & Rosenheck, 1999), the black box of blending practices fabricated by desperate clients has been ignored. Indeed, the conceptualization pitfall of “tyranny of use/no use” (Pescosolido, 2000), which was the dominant analytic framework in health services utilization or illness behaviour research, is no longer rigorous enough to

Table 4  
Sociodemographic profile of respondents in relation to anti-biomedicine belief and integrative use of xi-yi

<table>
<thead>
<tr>
<th>Sex</th>
<th>Antibiomedicine belief</th>
<th>Selective use</th>
<th>Adaptive use</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Weak %</td>
<td>Median %</td>
<td>Strong %</td>
</tr>
<tr>
<td>Male</td>
<td>29.0</td>
<td>37.7</td>
<td>33.4</td>
</tr>
<tr>
<td>Female</td>
<td>25.8</td>
<td>37.8</td>
<td>36.4</td>
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<table>
<thead>
<tr>
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<th>Antibiomedicine belief</th>
<th>Selective use</th>
<th>Adaptive use</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Weak %</td>
<td>Median %</td>
<td>Strong %</td>
</tr>
<tr>
<td>20–29</td>
<td>26.8</td>
<td>37.9</td>
<td>35.3</td>
</tr>
<tr>
<td>30–39</td>
<td>30.1</td>
<td>34.3</td>
<td>35.5</td>
</tr>
<tr>
<td>40–49</td>
<td>26.9</td>
<td>35.3</td>
<td>37.8</td>
</tr>
<tr>
<td>50–59</td>
<td>27.6</td>
<td>42.1</td>
<td>30.3</td>
</tr>
<tr>
<td>60+</td>
<td>23.4</td>
<td>42.1</td>
<td>34.5</td>
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<table>
<thead>
<tr>
<th>Education</th>
<th>Antibiomedicine belief</th>
<th>Selective use</th>
<th>Adaptive use</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary</td>
<td>Weak %</td>
<td>Median %</td>
<td>Strong %</td>
</tr>
<tr>
<td>20.1</td>
<td>44.9*</td>
<td>35.1*</td>
<td>31.8</td>
</tr>
<tr>
<td>Secondary</td>
<td>20.5</td>
<td>40.9</td>
<td>38.6</td>
</tr>
<tr>
<td>High</td>
<td>29.0</td>
<td>33.7</td>
<td>37.3</td>
</tr>
<tr>
<td>College</td>
<td>30.9</td>
<td>37.6</td>
<td>31.6</td>
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<table>
<thead>
<tr>
<th>Urbanization</th>
<th>Antibiomedicine belief</th>
<th>Selective use</th>
<th>Adaptive use</th>
</tr>
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<tbody>
<tr>
<td>Highest</td>
<td>Weak %</td>
<td>Median %</td>
<td>Strong %</td>
</tr>
<tr>
<td>32.6</td>
<td>40.6</td>
<td>26.9*</td>
<td>47.7</td>
</tr>
<tr>
<td>High</td>
<td>28.2</td>
<td>35.1</td>
<td>36.8</td>
</tr>
<tr>
<td>Median</td>
<td>25.4</td>
<td>38.2</td>
<td>36.5</td>
</tr>
<tr>
<td>Low</td>
<td>25.7</td>
<td>36.8</td>
<td>37.6</td>
</tr>
</tbody>
</table>

*P < 0.05 **P < 0.01 ***P < .001.
capture the complicated ways of integrative use. The recent novel outlooks on “hybrid” medicine, such as McGuire’s *bricolage* use of cultural elements of diversified healing practices (McGuire, 2002) and Morris’ imaginative application of architecture concept of *double coding* (Morris, 2000), are stimulating for future research on multiple healthcare paradigms.

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**References**


