Home-Based Therapies for the Common Cold Among European American and Ethnic Minority Families

The Interface Between Alternative/Complementary and Folk Medicine

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Background: Most studies of alternative/complementary medicine use in children have focused on children with chronic illness and have not addressed the more common form of complementary medicine: popular home-based interventions and therapies for common low-morbidity sickness episodes. Also, there has often been a distinction between alternative/complementary medical practices used by the general population and those used by members of ethnic minority groups and commonly referred to as folk medicine or ethnomedicine.

Objective: To describe the home-based therapies and practices that parents from diverse ethnocultural backgrounds use to treat the common cold in their children.

Method: Interviews with mothers of children coming for care at a number of clinics and physicians' offices. Included were mothers from European American, African American, Puerto Rican, and West Indian–Caribbean heritages.

Results: Mean number of home-based remedies for the common cold did not differ among ethnic groups (controlling for maternal age, maternal education, number of children, and health insurance status). There were differences among groups regarding the frequency of use of specific remedies.

Conclusions: Home-based remedies for colds in childhood are commonly used. Many of the treatments are complementary to biomedical treatment (ie, antipyretics, over-the-counter cold remedies, fluids). Very few are potentially hazardous if taken in moderation. Mothers from ethnic minorities use similar amounts of home-based interventions when compared with mothers from the majority culture.


A
n early study of health care practices showed that 70% to 90% of self-recognized sickness episodes are managed outside of the formal health care system.¹ The increasing popularity of alternative/complementary medicine in recent years has further increased the options that patients and families have regarding health care interventions. Health care has been described by Kleinman² as a local system composed of 3 overlapping parts or sectors: (1) the professional sector, (2) the popular sector, and (3) the folk sector (Figure). The professional sector encompasses organized healing traditions, which by nature of their history and present usage are considered the dominant local healing paradigm. Western biomedicine is one such professional sector tradition, although others such as Ayurvedic and Traditional Chinese Medicine exist. The popular sector includes self-treatment, family care, and systems of community and socially based networks of care. Overall, most health care activities occur in this sector. The folk sector includes nonprofessional healers and practitioners who use alternative therapies based on paradigms external to the dominant professional (eg, biomedical) model.

It is important to appreciate the interactive and overlapping nature of these sectors. They are not exclusive options that are singularly used during a sickness episode or during health maintenance. Patients move among the 3 sectors of the health care system in both sequential and simultaneous manners. Because of this, it becomes important for biomedical...
SUBJECTS AND METHODS

STUDY SAMPLE

Our study population consisted of parents who brought a child for care to 1 of 3 health care centers in the greater Hartford, Conn, area. One site was a hospital-based, inner-city pediatric clinic that serves a poor, multiethnic population; the second site was a family medicine private practice that primarily serves a Puerto Rican and African American working- and middle-class clientele; and a third site was a private pediatric practice that serves primarily a European American working- and middle-class clientele. These sites were chosen to obtain samples of respondents of different cultural affiliations and socioeconomic strata. In the greater Hartford area, the major ethnocultural groups are Puerto Rican, African American, European American (a term loosely used to describe the nonblack, non-Hispanic population, often referred to as anglo), and a smaller but growing number of individuals from the West Indian–Caribbean cultural area (including Jamaica, Guyana, Trinidad, Barbados, and Grand Cayman).

The study population consisted of parents (or primary caretakers) from the area’s 4 predominant ethnocultural backgrounds with previous experience in child rearing. The study sample consisted of parents (or primary caregivers) who brought their children to 1 of these offices or clinics for either a well-child or an illness visit, and who had previous experience caring for a child with the common cold. Since the majority of parents and caretakers were mothers, for the remainder of the article, the term mother will be used.

A convenience sample of these mothers was selected at each site. Ethnocultural affiliation was determined by respondent self-report and birthplace. We attempted to obtain socioeconomically varied samples for each of the ethnocultural groups (using health insurance status as a proxy for socioeconomic status).

DATA COLLECTION

Once a mother was identified as being eligible for inclusion (by ethnocultural affiliation and experience of caring for a child with a cold), she was interviewed by a research assistant (T.S., A.F., M.S.). The assistant explained that we were interested in learning about what parents do at home for common pediatric problems. They stated this to the mother as follows: “We are conducting a study of how parents manage common childhood illness. There are many things that a parent can do when their child has an illness, like a cold for example. Therapies and treatments other than those specifically recommended by a doctor or nurse are often used by people, especially when their child has a mild illness that may not require seeing or calling a doctor. We are interested in learning about these remedies and therapies.”

We then asked if the parent had ever had to treat their child for a cold. If they answered affirmatively, we asked them to free-list the remedies or therapies that they have used to treat a cold. The parents listed all the remedies and therapies that they could recall, as well as whether they thought the remedy was effective or not. If the parent was having trouble answering the question, the research assistant would prompt for answers by asking whether the mother had ever tried giving homemade remedies, special foods or herbs, vitamins or supplements, physical treatments, or spiritual therapies. In this way, a list was generated of all alternative remedies and therapies that the parent had tried, and the parent’s estimation of the effectiveness of these remedies and therapies.

STATISTICAL ANALYSIS

Differences among ethnocultural groups in sociodemographic data were analyzed by analysis of variance or the χ² test, depending on whether the variable was continuous or discrete. The major analyses for this study were (1) differences in mean number of home-based therapies among ethnic groups, and (2) differences in specific remedies/therapies used among ethnocultural group. Differences in mean number of responses were determined through analysis of covariance, controlling for significant confounding variables (age of mother, education level of mother, number of children, and socioeconomic status). Differences in specific remedies/therapies were determined by analyzing the most common responses for each ethnocultural group.

We calculated that to find a difference of 0.67 SD in mean number of responses per group at an α level of .05 and a β level of .2, approximately 45 respondents were needed per ethnocultural group.
The most common home therapies used per ethnocultural group are presented in Table 3. Biomedical over-the-counter therapies are listed first, followed by other home therapies and remedies. Antipyretics and miscellaneous over-the-counter medications were commonly used by all mothers. Other home therapies were used in varying degrees in different ethnocultural groups. In general, European American mothers used fluids, moisture, and heat; African American mothers, chicken soup, camphor rubs, and teas; Puerto Rican mothers, cam-

Table 1. Study Sample Demographics*

<table>
<thead>
<tr>
<th></th>
<th>EA</th>
<th>AA</th>
<th>PR</th>
<th>W/C</th>
<th>Significant Differences†</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maternal age, y</td>
<td>35.1</td>
<td>31.0</td>
<td>28.8</td>
<td>32.3</td>
<td>EA&gt;PR and AA, PR&lt;all</td>
</tr>
<tr>
<td>Maternal education, y</td>
<td>16.0</td>
<td>12.8</td>
<td>11.5</td>
<td>12.1</td>
<td>EA&gt;all, AA&gt;PR</td>
</tr>
<tr>
<td>No. of children</td>
<td>2.3</td>
<td>2.7</td>
<td>2.4</td>
<td>2.9</td>
<td>No differences</td>
</tr>
<tr>
<td>Private insurance, %</td>
<td>92</td>
<td>29</td>
<td>27</td>
<td>30</td>
<td>EA&gt;all</td>
</tr>
</tbody>
</table>

*EA indicates European American; AA, African American; PR, Puerto Rican; and W/C, West Indian–Caribbean.  †Analysis of covariance.

Table 2. Mean Number of Home Therapies per Ethnocultural Group*

<table>
<thead>
<tr>
<th></th>
<th>European Americans</th>
<th>African Americans</th>
<th>Puerto Ricans</th>
<th>West Indian–Caribbean</th>
<th>Difference, P†</th>
</tr>
</thead>
<tbody>
<tr>
<td>Including antipyretics and OTC</td>
<td>3.8</td>
<td>3.2</td>
<td>3.5</td>
<td>3.2</td>
<td>.28</td>
</tr>
<tr>
<td>Excluding antipyretics and OTC</td>
<td>2.5</td>
<td>2.1</td>
<td>2.2</td>
<td>2.1</td>
<td>.51</td>
</tr>
</tbody>
</table>

*Controlling for maternal age, education, number of children, and insurance status. OTC indicates over-the-counter remedies.  †Analysis of covariance.

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The listed home therapies and remedies can be grouped into the following alternative/complementary medicine categories. Herbs and nutritional supplements include herbal teas, mixtures, and vitamins; physical therapies include massage, rubs, and exercises; prayer and spiritual include various forms of prayer and spiritualist healing; and humoral and hot-cold refers to the traditional theory of balance and homeostasis as it relates to illness categorization and treatment. When responses were placed into these groupings, the following differences were noted (Table 4). European American mothers’ responses commonly included interventions that fit within the hot-cold theory of illness. Examples of these include warm baths, keeping warm or dressing warmly, warm compresses, and use of steam. The most common response categories for African American mothers were herbs and nutritional supplements (vitamins and herbal teas) and physical modalities (rubs and salves). The Puerto Rican mothers’ responses fit mostly into the physical treatment category (including the common use of camphor rubs), whereas 15 of the 20 West Indian–Caribbean mothers mentioned herbal teas (including senna, rosemary, milo, garlic, and bush tea, as well as unspecified herbal teas).

A small proportion of mothers (3.5% of total sample) mentioned alcohol rubs as a treatment (2 African Americans, 7 Puerto Ricans, and 1 West Indian–Caribbean). No other remedies were identified as having significant potential for serious adverse effects if taken in moderation.

The literature regarding alternative/complementary medical practices used for childhood health and illness is scant. Much of this literature concerns alternative practices for chronic illness, such as asthma, cystic fibrosis, arthritis, and cancer. Little is known about alternative/complementary or non–physician-directed therapies for “low morbidity–high frequency” sickness episodes, or for health maintenance. One study from a pediatric outpatient department in Canada reported that 11% of families questioned had used complementary medicine, including chiropractic, homeopathy, naturopathy, and acupuncture. The definition of complementary medicine in that study appeared to include only interventions that would fit into the professional or folk sectors of Kleinman’s health care system model, and did not include home-based practices from the popular sector. Therefore, that study reports only the “tip of the iceberg” with regard to unconventional and alternative/complementary therapies in children. The present study specifically addressed home-based practices, which we feel constitute the majority of parent-initiated interventions.

One of our goals was to address the issues of alternative/complementary therapies in a cross-cultural perspective. It was our impression that both the medical literature and the popular press often conceptualize unconventional therapies practiced by the majority culture and ethnic minorities differently. Our goal was to determine both the difference and similarities in home health care interventions among mothers from diverse ethnocultural backgrounds. Our results show that the amount of home-based alternative/complementary therapies is similar among mothers from both the majority and minority cultural groups, even after controlling for economic and demographic differences. There was variability among cultural groups, however, in the relative frequency of specific remedies and therapies, as well as in categories of alternative/complementary therapies. Some of these differences support past literature and conventional wisdom regarding common culture-specific therapies; others do not. For example, the use of camphor rubs (such as Vicks Vaporub) has often been cited as a common therapy in the Puerto Rican community. Our study supports this and shows that usage of these common remedies continues to exist over time and through generations. The use of camphor rubs is not exclusive to Puerto Ricans, though, as can be documented in the literature, as well as in the present study. Seven per-

<table>
<thead>
<tr>
<th>Table 3. Home Remedies and Therapies for Colds</th>
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</thead>
<tbody>
<tr>
<td><strong>European Americans</strong> (n = 85)</td>
</tr>
<tr>
<td><strong>African Americans</strong> (n = 68)</td>
</tr>
<tr>
<td><strong>Puerto Ricans</strong> (n = 108)</td>
</tr>
<tr>
<td><strong>West Indian–Caribbean</strong> (n = 20)</td>
</tr>
<tr>
<td>Remedy</td>
</tr>
<tr>
<td>Acetaminophen</td>
</tr>
<tr>
<td>Ibuprofen</td>
</tr>
<tr>
<td>Miscellaneous OTC*</td>
</tr>
<tr>
<td>Fluids or liquids</td>
</tr>
<tr>
<td>Chicken soup</td>
</tr>
<tr>
<td>Steam or heat</td>
</tr>
<tr>
<td>Orange juice</td>
</tr>
<tr>
<td>Vitamins</td>
</tr>
<tr>
<td>Elevate head</td>
</tr>
<tr>
<td>Juice, nonspecified</td>
</tr>
</tbody>
</table>

* OTC indicates over-the-counter remedies.
† Connotes commercially prepared soup in canned or dry form; no flavor specified.

**Arch Pediatr Adolesc Med/Vol 152, Nov 1998**

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cent of the European American mothers, 13% of African American mothers, and 20% of West Indian–Caribbean mothers mentioned its use. Although camphor rubs may be considered an over-the-counter remedy in the majority European American culture, their common use in some ethnic groups assigns them the designation of folk remedy.

Our finding that humoral or hot-cold beliefs were more common in the European American group than the Puerto Rican group merits discussion. Much has been written about the hot-cold theory of disease in Hispanic-Puerto Rican group merits discussion. Much has been written about the hot-cold theory of disease in Hispanic-Latino or Puerto Rican folk medicine. Results from this study suggest that the prevalence of humoral practices is low in this group of Puerto Rican mothers and is in fact relatively high for the group of European American respondents. Cross-cultural studies such as this place these practices in perspective and help guard against incorrect assumptions based on noncomparative data.

The observation that the most common home-based therapies included over-the-counter medications such as antipyretics and cold remedies lends further support to the belief that, in most cases, home therapies are truly complementary and not used in isolation from biomedical care. In fact, many of the home-based remedies could be recommended by physicians. If one ranks these home-based therapies on relative suitability within the biomedical model, most could fit within a broad definition of biomedical care (eg, fluids, juices, humidification). The least biomedical of the remedies would be herbal teas and camphor rubs, which were used with greater frequency in the ethnic minority groups.

The definition of what is considered an alternative vs nonalternative, home-based therapy is complex. It is important to note that biomedicine and alternative/complementary medicine are not static categories. Substantial shift, overlap, and redefinition continue to occur. Many over-the-counter remedies and environmental therapies (such as humidifiers) may have some benefit from the biomedical perspective, and some practitioners advise parents to use them under specific conditions. In these cases, they may be considered home-based but not alternative, since they were recommended by the health care practitioner. If these therapies are used without the recommendation of the health care practitioner, one might consider them alternative. Likewise, if a biomedical health care practitioner recommends a herbal tea, acupuncture, or a homeopathic remedy, are these therapies truly alternative? One can argue that in this situation they are not, whereas in other circumstances they would definitely be considered alternative. We did not specifically ask whether the remedies used were recommended by the health care practitioner. Future studies on home remedies may benefit from including questions such as, “Where did you learn about this remedy?” or “Who advised you to use this remedy?” to determine whether the therapy was truly alternative or recommended by a physician.

These data support the concept of medical pluralism: the theory that individuals draw on multiple modalities and healing traditions in their health care practices. Since patients do not often provide physicians and nurses with information about home-based or alternative/complementary therapies, it becomes crucial for providers to initiate discussion on this topic in a nonjudgmental manner.15

Before this study, we assumed that parents might frequently use alternative/complementary therapies for common childhood illnesses such as colds. Our data suggest that, while parents often use home-based therapies, the use of therapies that are truly alternative to biomedical practice is minimal.

One limitation of this study is its sampling design. A study of alternative medicine that relies on a clinic-based sample may underreport the use of alternative/complementary and unconventional medicine. Respondents may feel uncomfortable discussing nonbiomedical practices in a physician’s office. We attempted to limit this by employing individuals not associated with the health care staff as interviewers and by explaining the reasons for the study. We do appreciate, though, that the clinical environment where the interview took place may have made candid discussion difficult. Also, by using a clinical sample, we may have missed those families who underutilize biomedical care. These families may also be high users of alternative/complementary therapies. A population-based sample would have been more optimal in this regard.

We also had a relatively small sample of West Indian–Caribbean parents, so the results from this group should be interpreted with caution. Sparse information is available in the clinical literature about this cultural group. Although they share with African Americans the stigma of minority status and the resultant discrimination, the cultures of the West Indian islands are, in many ways, distinct from traditional African American culture. We strongly recommend that researchers who work in ethnically diverse settings consider members of West Indian–Caribbean communities separate from African Americans. Further studies within this growing community are needed to gain a better understanding of this underrepresented group.

Despite these limitations, our study suggests that parents use various home remedies during common childhood illness episodes such as colds, and that these home interventions are generally benign and truly do complement biomedical care. Furthermore, parents from different ethnic/cultural groups, including the majority European Americans, list similar numbers of home remedies.
The use of specific remedies and categories of remedies do vary by ethnocultural affiliation, though. Health care practitioners need to be aware of the common use of home-based therapies. They should feel confident that these remedies are mostly benign and complementary to our biomedical care. Clinicians are encouraged to inquire about their use with patients and families. The importance of open communication regarding the overall treatment of sickness cannot be overstated. When physician and patient talk openly about these issues, the therapeutic environment improves, opportunities for health education increase, and the patient gains confidence in the physician as a therapeutic ally. In addition, the chance that the patient will suffer adverse effects of harmful therapies decreases, and the physician can gain important information that will help place the biomedical therapeutic plan within the patient’s lifestyle and world view; thus increasing the likelihood of adherence to the clinician’s therapeutic plan.

Accepted for publication June 16, 1998.

We thank Thomas Fromson, MD, and Alberto Rodriguez, MD, for allowing us to interview their patients for this study. We also thank Paul H. Dworkin, MD, and Kathi J. Kemper, MD, for their thoughtful suggestions and advice during the conceptualization of this project. We are also grateful to the parents who allowed us to interview them about this topic.

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REFERENCES


1999 Certifying Examinations of the American Board of Pediatrics

General Pediatrics examination:

Pediatric Endocrinology Subspecialty examination:
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Pediatric Infectious Diseases Subspecialty examination:

Adolescent Medicine Subspecialty examination: *
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