Alternative Medicine Use by Homeless Youth

Cora Collette Breuner, MD; Paul J. Barry, MSW; Kathi J. Kemper, MD, MPH

**Background:** Mainstream health care for homeless youth is often fragmented or unavailable.

**Objective:** To evaluate the use of complementary and alternative medicine (CAM) by homeless youth who use our free clinic.

**Design:** Self-administered cross-sectional survey.

**Subjects and Methods:** Subjects included homeless youth between the ages of 14 and 21 years receiving care at the 45th Street Clinic Youth Program in Seattle, Wash, between January 29, 1998, and March 5, 1998. The self-administered survey included items on demographics, health issues, use frequency of different therapists or therapies, referral sources, and perceived effectiveness of treatment.

**Results:** The response rate by patients was 96.3% (157/163) with an average respondent age of 18.5 years (range, 14-21 years). Complementary and alternative medicine was used by 70.1% of the subjects. Referrals most often came from friends (52.7%). The most common reason for using CAM was because it was "natural" (43.9%). Most of those who used alternative therapies (87.3%) believed they had been helped "some" or "a lot." Given a choice of providers to visit when they were ill, 51.7% would seek care from a physician, 36.9% from a CAM provider, and 11.4% would treat themselves.

**Conclusions:** Care with CAM is frequently used and accepted by homeless youth. Cost-effectiveness and contributions to overall health care require additional evaluation. Integrating CAM into allopathic health centers may serve as an incentive to entice youth into mainstream health care.

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**A**DOLESCENTS ARE generally healthy, and morbidity rates for adult medical conditions, such as heart disease and cancer, are low. However, adolescence may be associated with preventable morbidity, mortality, and poor health habits. Accidents, suicide, and homicide are the leading causes of death, while sexually transmitted diseases, substance abuse, pregnancy, and homelessness yield substantial physical and emotional morbidity.1

A major role of health supervision is the periodic assessment and support of the adolescent's ability to adapt to the challenges and risks attendant to growing up. The annual health guidance and screening visits recommended by the American Medical Association's *AMA Guidelines for Adolescent Preventive Services (GAPS)*2 and *Bright Futures*3 provide adolescents with a sense of confidence and knowledge of good health habits. During these visits, teenagers are encouraged to develop the responsibility to make healthy choices and be actively involved in decisions regarding delivery of their own health care.4

Despite these recommendations, many adolescents lack access to health care. In the National Medical Education Survey of 1987, one third of adolescents (8 million) did not receive medical care. Reasons cited include lack of insurance, low income, perceived racial barriers, and general mistrust of authority.5

The homeless encounter similar barriers to health care. Homelessness is now a major social problem in the United States, affecting both small and large cities. Estimates of the total numbers of homeless people range from 250 000 and 3 million.6 Homeless men, women, and children make up a growing population highly susceptible to preventable diseases, which may lead to premature death.7 Unfortunately, their health care use is fragmented and delayed by both internal and external bar-

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**Editor's Note:** Readers might argue with some aspects of this study (What else is new?), such as categorizing vitamins as CAM. However, it’s clear that at least where CAM sites are available, even allopathic practitioners refer patients to them.

*Catherine D. DeAngelis, MD*
SUBJECTS AND METHODS

To answer these questions, we performed an anonymous, cross-sectional survey in a free clinic serving homeless youth in Seattle, Wash. Subjects were eligible for the study if they were between the ages of 14 and 21 years and attended the 45th Street Clinic Youth Program between January 29, 1998, and March 5, 1998. Obviously mentally ill or acutely intoxicated subjects were excluded from the survey.

The Youth Program is a special operation of the 45th Street Clinic, a community health center whose mission is to provide health care to low-income people of all ages who otherwise could not afford it. Free primary health care for homeless and at-risk street youth is offered on a drop-in basis on Tuesday and Thursday evenings from 6 PM to 9 PM. Follow-up is provided during regular daytime clinic hours. Special focus is placed on providing a safe, supportive, and accessible environment for homeless youth that is sensitive to their needs.

The Youth Program serves 25 to 40 teenagers each evening. Of these, 20% to 30% are new patients. The program has adopted a comprehensive approach to treat its young patients. Program staff includes a social worker, nurse practitioner, medical assistants, receptionist, laboratory technician, pharmacist, and counselors for mental health, drug and alcohol, and human immunodeficiency virus (HIV). A large cadre of volunteer physicians, nurse practitioners, and physician assistants provide primary clinical care. The Swedish Family Practice residency also provides 2 family practice residents and their preceptor.

Prompted by a need first expressed by the patients, the program staff explored offering CAM. The medical philosophy of the program (ie, care should be youth centered and multidisciplinary) resonated with the values of CAM (ie, patient driven and holistic). The program staff hoped that, by providing CAM, they could encourage even the hardest-to-engage youths to use the clinic. Complementary and alternative medicine also appeared to reflect the counterculture values and distrust of traditional institutions some of these youth espoused. Providers of CAM include an acupuncturist and acupuncture students from the Northwest Institute of Acupuncture and Oriental Medicine, Seattle, Wash. The program staff also includes 4 students and a preceptor from the Bastyr University Natural Health Clinic, 1 of 4 schools of naturopathy in the United States. Complementary and alternative medicine services, which are also free, can only be obtained by referral from the allopathic medical providers at the clinic.

The survey was initially tested with peer outreach workers who are former homeless youth. After modification, the survey was tested again with youth visiting the clinic. The final revised version was distributed between January 29, 1998, and March 5, 1998 (Figure).

The subjects read the cover letter or had it read to them by a volunteer who approached potential subjects after they registered. The cover letter explained in simple terms the reasons for the survey, the significance of the research, an assurance of anonymity, and an assurance of care even if they declined to participate. They received a coupon for a free cup of coffee or hot chocolate as an incentive for participating in the study.

The self-administered survey contained 2 pages of questions and took less than 5 minutes to complete. There were 4 demographic items: age, sex, last year of school completed, and duration of homelessness. There was 1 question concerning the health problems in the past 6 months and 1 question on the reason for the current visit.

There were 2 questions concerning the CAM treatments homeless youth may have sought in the past 6 months (herbs, vitamins, special diets, special exercise, and aromatherapy) and practitioners they may have seen (acupuncturists, naturopaths, homeopaths, and chiropractors). There was 1 question concerning who referred the youth to CAM, and 1 question on the reason for the use of alternative types of therapies. There was 1 question on the perceived efficacy of such treatments and 1 question on the desired health provider if the subject had a sore throat and a fever.

Data were entered on EXCEL spreadsheet (EXCEL 7.0, Microsoft, Seattle, Wash) and analyzed using simple summary statistics.

This study was approved by the University of Washington Human Subjects Committee.
medicine by children, 3 major characteristics differentiated users from nonusers: the child’s age (children were more likely to use CAM if they were older than 1 year), parental use of alternative medicine, and higher maternal education level. Patients with serious chronic illnesses, eg, cancer, cystic fibrosis, and juvenile arthritis, are especially likely to use CAM. Use rates for people in these groups may approach 66%.26-28

Little is known about the characteristics of those who use alternative therapy among underserved populations, specifically homeless adolescents, or on the perceived effectiveness of such treatments. Homeless youth could have either higher or lower use of CAM compared with the general population. Potential reasons for CAM use by homeless youth are that they are at high risk for chronic illness and addiction, mainstream care is unavailable, and they are leery of authority. Homeless youth may perceive CAM has unique advantages because it fits into their value system that includes an alternative lifestyle; a preference for the natural; and a reliance on themselves, their peers, and their street culture to solve problems rather than mainstream authorities.18 The barriers to mainstream health care may create a direct incentive to consider CAM.19 Alternatively, CAM use by homeless youth may be infrequent because the lack of parental role models (or even reverse effect of parental role models [ie, parental role models may negatively influence youth practices because youths rebel against parental authority, values, or examples]), low educational level, and decreased availability or promotion to this population. Another disadvantage of CAM use is that it is not reimbursed by most insurance plans and the youth may be unable to pay for it.

The extent of CAM use, conditions for which it is sought, and referral patterns among homeless youth are unknown. We evaluated patterns of CAM use by homeless youth to learn how they select health care and to enhance our ability to meet their complex health needs. Specifically, the following were our study questions: What CAM treatments do homeless youth most commonly seek? Who refers them? Why do they use alternatives? What is the perceived effectiveness of these treatments by homeless youth?

RESULTS

Of 163 questionnaires distributed, 157 (96.3%) were returned and analyzed. The 6 excluded subjects included 5 who were older than 21 years and 1 who did not want to finish the survey. The average age of respondents was 18.5 years (range, 14-21 years); 38.2% were male. The average last year of school completed was 10.6 years, with responses ranging from 6th grade to some college. Nearly 72% of the respondents were homeless. Slightly more than 28% of the respondents had tentative housing situations or were estranged from families. Of the respondents who were homeless, 48.6% had been for less than a year, 19.4% for 1 to 2 years, and 31.8% for longer than 2 years.

More than 78% of the youth had visited the clinic in the past 6 months for an acute medical problem such as an upper respiratory tract infection, vaginal or penile discharge, diarrhea, or musculoskeletal injury. Approximately 66.2% of the respondents reported chronic health problems, including asthma, back pain, stomach pain, or headaches. About 26.1% reported mental health issues such as stress, anxiety, or depression. More than 10% were concerned about their use of drugs or alcohol.
Slightly more than 40% of the respondents had visited the clinic more than 5 times in the past 6 months. The reasons for the current visit included preventative care (31.1%) such as contraception, HIV screening, and physical examinations; medical problems (46.5%); seeking CAM care (11.2%); and “came with a friend” (11.2%).

The average number of visits in the past 6 months to an allopathic medical doctor was 5.3; to a mental health or drug and alcohol counselor, 4.3; and to a CAM provider, 2.5.

In the past 6 months, 81.3% used allopathic or mainstream forms of therapy, 44.6% used mental health services, and 70.1% used CAM (Table). The percentages total more than 100% because respondents could check more than 1 form of treatment. The most frequently used forms of CAM therapies were vitamins (76.4%) and herbs (73.6%). Other forms of treatments frequently used were diet (40.9%), massage therapy (38.2%), exercise (31.8%), acupuncture (27.2%), meditation (26.4%), aromatherapy (21.8%), homeopathy (17.3%), and chiropractic (11.8%). Slightly more than 7% of the youth used shamans, psychic healers, magic spells, and flower teas.

The most frequent sources of referrals to CAM treatments follow. Nearly 53% of the youth were referred by friends, 21.8% by physicians or nurse practitioners, 20.9% by outreach workers or case managers, 20.4% by family members, and 14% by social workers. A little more than 18% were self-referred.

The most common reason for using CAM was because it was natural and organic (43.9%); other reasons included low cost (28%), perceived efficacy (26.1%), negative experiences with physicians (24.2%), friends use CAM and recommended it (20%), and pervasive mistrust of physicians (19%).

A little more than 87% of the youth reported that they were helped “some” or “a lot” by CAM. In a hypothetical situation where the subject had a sore throat and a fever, 51.7% would seek care from a physician, 36.9% from a naturopath or acupuncturist, and 11.4% would treat themselves.

This is the first study of CAM use in the traditionally underserved population of homeless youth. The 70% CAM-use rate is higher than that shown in prior studies of the general adult or pediatric population. In fact, CAM use among these homeless youths is similar to that of people with cystic fibrosis.27

Is this prevalence unexpected? Unlike many teenagers who are seen only once a year for a sports physical, this group seeks health care at a much higher rate because of the risks inherent in their lifestyle. Their higher morbidity repeatedly brings them face-to-face with a system they mistrust yet have to rely upon. Use of CAM may allow them to take care of their own needs while maintaining their autonomy. Including CAM in an allopathic clinic may even be a selling point to encourage youth to seek health care.

These youth are usually referred by friends, verifying that the fraternity of the street is the principal support network for those whose lives have been shattered by physical and sexual abuse, family dysfunction, chaos, and alienation.30 Friends’ recommendations of CAM serves as one of the highest motivators and is greatly valued. Our study also found that mainstream physicians were an important referral source for CAM providers. A previous study31 has shown that, despite the stereotype of nonacceptance, physicians do refer patients to a wide range of CAM providers, particularly chiropractors, acupuncturists, hypnotherapists, and spiritual healers. Another study32 reported that more than half of the responding physicians recommended relaxation techniques, biofeedback, therapeutic massage, meditation, and hypnosis.

Unlike others who seek CAM out of frustration with mainstream medicine,15 these subjects are driven by the values of organic and natural therapies. Many are vegetarian. Other important motivators include expense, caring, and perceived effectiveness. Their comments indicate that they are disaffected with materialism and technical societal values. These youth may have been disappointed by the health care system and other authorities, leading to a pervasive mistrust of anything presumed not “natural.” Complementary and alternative medicine is psychologically more accessible to them than allopathic medicine because it matches their preferences for natural therapies, it is nonthreatening, and it allows them to retain a sense of control over their bodies.

These data raise at least 4 important questions: (1) If 70.1% of an underserved population is using some form of alternative treatment, is it really alternative? In our study, we included vitamins, diet, and exercise, which have been considered forms of alternative therapy in previous research.33 Even excluding these forms of therapy, 73.6% of the respondents used herbs and 27.2% used acupuncture. (2) Since physicians are an important referral source for CAM, should there be more systematic training during and after medical school on the appropriate use of these therapies? (3) What impact do these treatments and therapies have on the overall health care costs for this high-risk population? (4) What is the overall impact of adding CAM therapies to other therapies in clinics serving underserved and vulnerable populations?

### Table

<table>
<thead>
<tr>
<th>Type of Therapy</th>
<th>Subjects Reporting Use (n = 157), %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Allopathic (mainstream)*</td>
<td>81.3</td>
</tr>
<tr>
<td>Counseling</td>
<td>44.6</td>
</tr>
<tr>
<td>Complementary and alternative medicine</td>
<td>70.1</td>
</tr>
<tr>
<td>Vitamins</td>
<td>76.4</td>
</tr>
<tr>
<td>Herbs†</td>
<td>73.6</td>
</tr>
<tr>
<td>Special diet†</td>
<td>40.9</td>
</tr>
<tr>
<td>Massage</td>
<td>38.2</td>
</tr>
<tr>
<td>Special exercise</td>
<td>31.6</td>
</tr>
<tr>
<td>Acupuncture</td>
<td>27.2</td>
</tr>
<tr>
<td>Meditation</td>
<td>26.4</td>
</tr>
<tr>
<td>Aromatherapy</td>
<td>21.8</td>
</tr>
<tr>
<td>Homeopathy</td>
<td>17.3</td>
</tr>
<tr>
<td>Chiropractic</td>
<td>11.8</td>
</tr>
<tr>
<td>Shaman, magic, psychic healer, flower tea, fasting</td>
<td>7.3</td>
</tr>
<tr>
<td>Reiki</td>
<td>4.5</td>
</tr>
</tbody>
</table>

*Examples of allopathic or mainstream treatment would be prescription medications or surgery.
†Examples of herbs used would be echinacea, St-John’s-wort, or ephedra; of special diets, vegetarian or macrobiotic.
Despite these intriguing findings, this study has several limitations that need to be addressed in future studies. All participants were patients of a primary allopathic clinic. The study did not include youth who did not seek formal medical care and may have excluded those who use CAM exclusively. Seattle is replete with CAM providers and training schools: the Northwest School of Acupuncture and Oriental Medicine and the Bastyr University have clinics within the youth program. Lower access to CAM, such as in rural areas, may be associated with lower rates.

Also, there was no control group of youths attending similar clinics where there were no CAM providers on site. Adolescents attending our program may have chosen this clinic to have access to CAM. Future studies including other clinics may reveal more representative use patterns for this population.

More outcome studies need to be performed to determine the cost-effectiveness of CAM, particularly in those clinics where there is already an integrated system of CAM and allopathic care. One such study of a substance abuse treatment program showed that adding acupuncture helped clients recover. Such clinics already exist in Great Britain, where uniform practice aims and increased knowledge-sharing has proven beneficial to their patients.

Despite these limitations, our data have clinical and public health implications. The barriers to the use of mainstream health care by homeless youth include not only cost, confidentiality, and trust but also perceptions that mainstream care is not natural, organic, or compassionate. While most youth would seek care for a sore throat and fever from a physician, a substantial minority would turn to a CAM provider first. This may in part account for the delays in care so common among the homeless youth in the United States. This previously unrecognized reliance homeless adolescents have on CAM providers has implications for improving youth services. Every time alienated youths seek care from a clinic they feel is open and caring, they may get closer to mainstream health care, safer health practices, and eventually shelter and a reconnection to the community.

One of the major recommendations of the task force on homeless and runaway youth is that creative multidisciplinary service strategies should be established. Integrating complementary medicine and health care services may be a beneficial intervention for this population. Our study has revealed for the first time that homeless youth frequently use CAM and often prefer it to other treatments. They have different motivations for using CAM and are referred by different sources compared with previously studied populations. Important questions remain. Further research studies need to be undertaken, especially on the cost-effectiveness of an integrated comprehensive primary care clinic for underserved youth.

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Reprints: Cora Collette Breuner, MD, Family Medicine Residency, Swedish Medical Center, 1401 Madison St, Suite 200, Seattle, WA 98104 (e-mail: cbreuner @h.washington.edu).

REFERENCES