Rural and Remote Health
MEDLINE listed
ARHEN
FRAME
ISSN 1445-6354
The International Electronic Journal of Rural and Remote Health Research, Education, Practice and Policy

LETTER TO THE EDITOR

Patients are more likely to use complementary medicine if it is locally available

MM Moga, B Mowery, R Geib

Indiana University School of Medicine, Terre Haute, Indiana, USA

Submitted: *10 June 2008;* ***Published:*** *26 June 2008*

Moga MM, Mowery B, Geib R

Patients are more likely to use complementary medicine if it is locally available
Rural and Remote Health **8: 1028. (Online), 2008**

Available from: http://www.rrh.org.au

Dear Editor

Complementary medicine (CM) therapies and products, such as acupuncture, massage, prayer, vitamins, herbs, and diet programs, are widely used by patients as an adjunct to primary care. Predictors of CM use are complex, and include socioeconomic characteristics, clinical conditions and type of CM therapy used[1,2]. It is not yet clear if rural patients use the same amount of CM, or use similar CM therapies, to those of urban patients. In a preliminary study, we compared CM use among rural and urban family medicine patients in the predominantly rural region of west central Indiana.

Incoming patients at three family medicine clinics in western Indiana (Clay City Center for Family Medicine, Worthington Family Medicine, Union Hospital Family Medicine Center in Terre Haute) were invited to participate in this study. Clay City and Worthington are small rural communities (population of 1000 and 1500, respectively), located 30-50 miles from an urban center, Terre Haute (population 57 000). At each site, participants completed a 'complementary medicine use survey', which examined patient use of 20 different CM therapies. Responses from the rural and urban populations were compared with the Pearson's χ^2 test using a significance level of 0.05[3]. Local availability of CM practitioners and products within each community was determined by: (i) inquiring at each clinic whether certain services were available; (ii) examining the vitamin/herb/supplement sections of local pharmacies and grocery stores; and (iii) examining the business directory in the local phone book.

Both rural and urban populations showed substantial use of chiropractic care, diet programs, lifestyle diet, massage, simple home remedies and vitamins (Table 1), followed by faith/ prayer healing, reflexology and relaxation techniques. The rural population used significantly less acupuncture (11% vs 28%, $p<0.01$), less herbal medicine (33% vs 56%, $p<0.01$), less osteopathic manipulation (16% vs 31%, $p<0.01$), and less yoga (9% vs 19%, $p<0.05$).

Table 1: Percentage of types of complementary medicine therapy used (rural vs urban)

Complementary medicine therapy	Rural % *n* = 64	Urban % *n* = 32	*P* value
Acupuncture	11	28	<0.01
Biofeedback	8	3	
Chiropractic care	52	50	
Diet programs	47	56	
Faith/ prayer healing	36	28	
Herbal medicine	33	56	<0.01
Homeopathy	9	6	
Hypnosis	6	9	
Lifestyle diet	47	60	
Massage	48	44	
Meditation/ guided imagery	16	19	
Naturopathy	0	3	
Osteopathic manipulation	16	31	<0.01
Reflexology	23	25	
Reiki or Qigong	2	3	
Relaxation techniques	33	38	
Self-help group	14	9	
Simple home remedies	69	72	
Vitamins	84	78	
Yoga	9	19	<0.05
Other	2	9	

Our results show similar usage for 16 out of 20 CM therapies among rural and urban family medicine patients in western Indiana. Significant differences between the two groups were limited to acupuncture, herbal medicine, osteopathic manipulation and yoga. To understand these differences, we did a post-hoc analysis of CM availability at the rural and urban study sites. At the Union Hospital Family Medicine Clinic, one physician was board certified in medical acupuncture, and another, an osteopathic physician, included manipulation in his practice, so these therapies were readily available to our urban but not to our rural populations. Herbal medicine, another CM therapy with a significant rural-urban difference, is widespread and abundant in pharmacies and supermarkets in Terre Haute, but not in Clay City and Worthington. Chiropractic practitioners were widespread and accessible to both groups, possibly explaining the lack of difference in the use of this therapy.

In a rural family practice clinic in northern Pennsylvania, Del Mundo et al.[4] observed that patients are more likely to use a CM therapy if it is locally available. However, Nichols et al.[5] found that local availability was not a critical factor in care-seeking behavior among rural residents in North Dakota and Montana, and that, 'rural residents traveled significant distances [average of 25 miles] to visit the naturopathic provider who met their needs'. Our results suggest that CM use by rural patients may depend, in part, on local availability of providers and products.

Margaret Moga, PhD
Barbara Mowery, MD
Roy Geib, PhD
Indiana University School of Medicine
Indiana, United States of America

References

1. Palinkas LA, Kabongo ML. The use of complementary and alternative medicine by primary care patients: A SURFNET study. *Journal of Family Practice* 2000; **49:** 1121-1130.

2. Barnes PM, Powell-Griner E, McFann K, Nahin RL. Complementary and alternative medicine use among adults: United States, 2002. *Advance data* 2004; **343:** 1-20.

3. Munro BH. *Statistical methods for health care research*, 5th edn. Philadelphia: Lippincott Williams & Wilkins, 2005.

4. Del Mundo WFB, Shepherd WC, Marose TD. Use of alternative medicine by patients in a rural family practice clinic. *Family Medicine* 2002; **34:** 206-212.

5. Nichols E, Weinert C, Shreffler Grant J, Ide B. Complementary and alternative medicine providers in rural locations. *Online Journal of Rural Nursing Health Care* 2006; **6:** 40-46.

