Attitudes des élèves-infirmières à l'égard des médecines douces et de leur utilisation: une étude exploratoire

Ron Joudrey et Jim Gough

Fondée sur les résultats d'un questionnaire à réponses libres, cette étude exploratoire a été entreprise dans le but de jauger les réactions et les attitudes des élèves-infirmières à l'égard des médecines douces, de même que leur degré d'acceptation. L'attitude des élèves-infirmières envers les médecines douces pourrait avoir une incidence sur le recours éventuel à ces thérapies dans le domaine de la santé. Les résultats de l'enquête confirment les conclusions d'autres études antérieures sur les infirmières diplômées: on a constaté au sein de l'échantillon d'élèves-infirmières un taux d'utilisation élevé des médecines douces et un degré relatif d'acceptation à l'égard de ces dernières.

Mots-clés: médecines douces, thérapies, élèves-infirmières, usage, attitudes, exploratoire

Student Nurses' Use and Perceptions of Alternative Medicine: An Exploratory Study

Ron Joudrey and Jim Gough

This exploratory study is based on the results of an open-ended questionnaire administered to nursing students to assess their reactions to, use of, attitudes towards, and acceptance of alternative medicine. Acceptance of alternative therapies by nursing students could influence the future use of such therapies within health care. Consistent with the findings of studies with graduate nurses, high usage rates and qualified acceptance of alternative medicine were found among the sample of nursing students. Some reasons for this generally receptive attitude are presented, along with implications for future health-care practices.

Keywords: alternative medicine, allopathic medicine, therapies, student nurses, coding techniques, usage, perceptions, satisfaction, exploratory, effectiveness

Many health-care professionals such as nurses and doctors appear to be paying increasing attention to the eclectic variety of therapies labelled variously as natural, alternative, unconventional, or complementary. Authors such as Budrys (2001) and Clarke (2000) mention the difficulty of finding an agreed upon definition of alternative medicine. The Office of Alternative Medicine defines it as "an unrelated group of therapeutic practices that do not follow conventional biomedical explanations" (quoted in Goldstein, 2000, p. 285). In recent years, mainstream medical and nursing journals have devoted more coverage to this area. There have been several research studies on health-care professionals' use of and attitudes towards alternative medicine (hereinafter AM). See, for example, Hayes and Alexander (2000); King, Pettigrew, and Reed (1999); and Verhoef and Sutherland (1995). As well, Goldstein (2000) argues that conventional health-care providers are showing increasing interest in and acceptance of AM.

Much of this clinical and research interest follows on the heels of two landmark and widely cited studies by Eisenberg et al. (1993, 1998). These two studies, published in prestigious medical journals, indicate, among other things, increasingly high usage of AM among the American public. A Canadian study carried out by nurses (McClennon-Leong & Kerr,

1999) found high usage of AM by Canadians, though not as high as the rates found in the two investigations led by Eisenberg. Goldstein (2000) suggests that this interest in AM among health-care professionals is partly an attempt to catch up and respond to increasing use and acceptance of AM by the public. Eisenberg et al. (1993) found that many people who used AM did not tell their physicians they did so. This practice may account for much of nurses' and physicians' attention to AM, since independent use of such therapies by patients could have detrimental health effects (for example, it could cause adverse drug reactions). While there have been a number of studies investigating physicians' perceptions of AM, the focus of the present study was nurses' perceptions of AM.

Research interest in nurses and AM has been growing following the publication of Eisenberg's studies. King et al. (1999) investigated usage of and attitudes towards AM among registered nurses in the state of Ohio. They found generally favourable opinions about complementary therapies as well as high personal usage of some complementary therapies, although for many therapies the nurses' knowledge level was lower than their interest level. Hayes and Alexander (2000) explored knowledge and use of AM among nurse practitioners in the state of Connecticut. They found that 78% of the respondents considered themselves somewhat knowledgeable about alternative therapies, and 63% of these respondents had personal experience with AM. Tovey (1997) surveyed 1,000 alternative practitioners in the United Kingdom regarding their interactions with mainstream nurses and consulting physicians, and found nurses to be much more accepting of alternative practitioners than physicians.

A number of nursing authors (Hayes & Alexander, 2000; McClennon-Leong & Kerr, 1999; Melland & Clayburgh, 2000; Reed, Pettigrew, & King, 2000) cite the need for nurses to become more knowledgeable about alternative therapies and for the inclusion of AM in nursing curricula. In the words of King et al. (1999):

If significantly more Americans are using some form of complementary therapy, it is imperative that nurses have a knowledge base of a variety of therapies in order to assist clients with decision making related to the therapies. (p. 250)

It is against this background that the present study was carried out. To the best of our knowledge, there have been no studies to date of student nurses' use and perceptions of AM. We feel it is important that student nurses be included in the category of health professionals since this new generation of practitioners will have a great influence on future health care, including the role played by AM.

The Study

Aims

The general aim of the study was to explore student nurses' perceptions of AM. The specific aims were to determine (1) the extent of AM use among student nurses, (2) the level of satisfaction with AM among student nurses, and (3) student nurses' beliefs about the effectiveness of AM.

Method

We developed an eight-item open-ended questionnaire. In this paper, we focus on the responses in two areas: (1) Have you ever used any type of alternative medicine? If so, which type did you use? Were you satisfied with the results? (2) Describe your opinion(s) of the effectiveness of alternative medicine.

Since this study could be described as exploratory rather than hypothesis-testing, we believed that the open-ended format would yield more in-depth data. Initially, face-to-face interviews were considered, but in the interests of time and a larger sample it was decided to use the open-ended questionnaire format.

Data Collection and Sampling

The setting for the research was a community college in central Alberta, Canada. This college has offered a nursing diploma program since the early 1970s and in 1990 began a 4-year collaborative baccalaureate degree program with the largest university in the province. In 1997 the nursing program was changed to a context-based learning paradigm, which in other settings is commonly known as problem-based learning. Students now have the option of training for either a diploma or a degree. At the time of the study, there were approximately 260 students enrolled in the 4-year program; the vast majority of the students were female.

After permission had been obtained from the college's Research Ethics Committee and the director of its nursing program, the question-naires were distributed simultaneously to students in all four years of the program. The aim was to sample as many student nurses as possible in each year of the program. A convenience sample rather than a random sample was decided upon, since the intention was to generate qualitative data in a grounded theory fashion rather than to test a hypothesis (Strauss & Corbin, 1990).

Various nursing instructors distributed the questionnaires in their classes. Data collection took place between January and December 2000. In a few cases there was time for students to complete the questionnaire

in class but in most instances the students took it home to complete. As expected, return rates were lower in the latter situation. Out of a total of 250 questionnaires distributed, 89 were returned. This constitutes a response rate of 35.9%. A breakdown of completed surveys by year of study is as follows: first year, n = 10; second year, n = 30; third year, n = 12; fourth year, n = 37. Since not every respondent answered every question, there was variability in the numbers responding to each question.

In keeping with ethical concerns, a covering letter to the potential respondents stated that participation was voluntary and anonymous and was not a required component of their nursing program. This point was reiterated verbally when the questionnaires were distributed in order to prevent any possible perception of coercion with regard to the study.

Data Analysis

The data analysis can best be described as schema analysis (Ryan & Bernard, 2000). The two researchers independently compared and coded the responses in an effort to identify themes. The basic units of analysis were responses to the open-ended questions. Themes were developed in an inductive fashion by carefully reading the responses and examining them for repeated words and phrases. Responses that were judged similar and frequently mentioned formed the basis for the content of the themes. Since the study was exploratory and not theory driven, the derivation of themes from the data was judged appropriate. This is what Boyatzis (1998) describes as a data-driven approach to theme development. The two researchers then jointly developed categories as a way of capturing the themes. The categories are illustrated with direct quotes by the respondents in an effort to faithfully represent their discourse (Stryker, 1980), using coding techniques discussed by Berg (1998). Numbers following the direct quotes presented in the Findings indicate year of program and respondent number (e.g., 1-10 means the quote is by a first-year student whose completed questionnaire was assigned the number 10).

In addition to this qualitative analysis, a frequency analysis of various responses was undertaken. Because this was an exploratory study, we saw no need for further quantitative analysis. However, this is an area that other researchers may be interested in pursuing.

Initially we intended to do a year-by-year comparison of perceptions. However, after a careful reading of the data no major differences among students in different years of the program were detected, aside from the fact that some of the more senior students tended to provide more elaborate, detailed responses. Also, the relatively low response rate among first- and third-year students resulted in insufficient data for meaningful

comparison. Thus, the findings presented here are based on an analysis of the entire sample of 89 completed questionnaires.

Finally, in order to test the trustworthiness of our categories the technique of member checking was employed by means of a class discussion in a medical sociology course taught by one of the researchers. This class included several nursing students who had participated in the study. Feedback from these respondents indicated that the analysis was recognizable to participants in the study. Lincoln and Guba (1985) consider member checking to be the most effective technique for establishing the credibility of an analysis.

Findings

Use of Alternative Medicine by Student Nurses

Seventy-two respondents (81% of the sample) acknowledged using some type of AM, and 33 of these (45.8%) had used more than one type. The types of alternative therapies most commonly reported were, in order of frequency, herbal medicine (32), massage (27), and chiropractic (20).

When asked about satisfaction with AM, 66.6% of the respondents who had tried it indicated that they were fully satisfied and 14% indicated that they were somewhat satisfied. Three respondents were unsure about their satisfaction and two were not satisfied. The high satisfaction rates suggest that student nurses tend to see AM in a positive light.

Effectiveness of Alternative Medicine

When asked to describe their opinion of the effectiveness of AM, 79 of the respondents expressed an opinion. Our analysis of these responses yielded the following categories: *ineffective* (n = 2), *unsure about effectiveness* (n = 19), *unqualified belief in effectiveness* (n = 13), and *effective under certain conditions* (n = 42).

Ineffective. Only two respondents expressed a belief that AM is ineffective. One cited the "lack of control measures and standardization" regarding AM (2-13). The other said:

I am skeptical. These medicines are often promoted by people who adhere to some conspiracy theory with medical doctors and scientists as the villains. They are also generally sold by self-educated people who have no formal training in any kind of medicine. (1-10)

Unsure about effectiveness. While 19 responses fell into this category, five respondents did not answer the question, possibly believing they were unable to give an informed opinion.

Six of the 19 respondents who were unsure stated that they had never used AM and therefore lacked the experience necessary to answer the

question, while 13 indicated that the absence of research and/or other information on AM made it difficult for them to form an opinion. Seven respondents pointed to the need for more research on effectiveness, with a few advising some caution until the results of such research become available.

Unqualified belief in effectiveness. Thirteen respondents wrote in generally positive terms about the effectiveness of AM, without any mention of factors limiting its effectiveness. In fact, six respondents noted the advantages of AM over conventional medicine, seeing it as more natural and holistic and producing fewer side effects:

Many forms of alternative medicine examine the person as a whole. By caring for the whole person the person is easier to bring back to health. (2-19)

These therapies are shown to be more effective than traditional medicine by research. They should be utilized more often because many alternative therapies have less adverse effects. (4-35)

Alternative medicine can be very effective with no side effects and no parts being cut out or cut off. (3–23)

Effective under certain circumstances. This was by far the largest response category. Forty-two of the 79 respondents who expressed an opinion (53%) perceived AM to be effective but under certain circumstances. These fall into five categories: beliefs, proper use, effective in combination, type, and practitioners.

Beliefs. Those who stressed the influence of beliefs on the effectiveness of AM tended to perceive a direct relationship between beliefs and outcomes. One first-year student wrote:

If the person believes in the therapy it will be effective. (1-5)

A fourth-year student was even more explicit about the primacy of the belief factor:

Alternative medicine works if and only if you believe it works. (4-25)

Several respondents used expressions like "mind over matter." Interestingly, none of those who noted the importance of mindset mentioned any other causal factors in the effectiveness of AM. In a discussion of the effectiveness of allopathic therapies, we might expect causal relationships to be more physical in nature — for example, a drug's biochemical effect on the body. For 18 respondents, however, psychological causes alone seemed sufficient to indicate the effectiveness of AM. One possible explanation for this finding is that people may perceive causal connections differently when considering the two types of medicine.

Proper use. Those who related proper use to effectiveness did not elaborate on what "proper use" might entail, thus making it impossible for us to glean much detail from their responses. While there were references to "useful for prevention," "can treat certain ailments," and "good for minor ailments," the remaining seven responses in this category contained vague phrases such as "if appropriately used" or "if taken properly." Only one respondent hinted at the meaning of proper use:

It can be effective as long as it is used appropriately and is not over used like most medicine is. (4-15)

We can hypothesize that, unlike in the case of beliefs, there is a tendency when considering proper use to apply the same criteria to alternative and allopathic medicines.

Effective in combination. There were six references to AM being effective when combined with traditional therapies. Two respondents stated that AM is somewhat effective but should not completely replace conventional medicine. There was also mention of the importance of medical monitoring. The benefit of combining alternative and conventional therapies was clearly suggested, as in the following comments by two fourth-year students:

It's alright to use alternative medicine in conjunction with mainstream medicine. I don't feel that alternative medicine could be used independently. (4-8)

It can be very effective but...needs to be used in combination with traditional medicine. (2-27)

Type. Four respondents looked at effectiveness in specific rather than general terms. They believed that some types of AM might be effective while others are clearly not. Only three types of therapy were specifically mentioned as being effective — group therapy, chiropractic, and muscle therapy. One fourth-year student stated:

Chiropractic and muscle therapy are very valuable in my opinion but most of the other stuff is a waste of time. (4-10)

Practitioners. The general opinion of four respondents was that AM can be effective when administered by skilled, qualified practitioners. The following two comments capture this perception:

I believe it probably could be effective but it needs to be administered by a well trained person (just like [in] nursing). (2-10)

Very effective but I am a bit cautious of credentials of the workers. Are they certified? Accountable? (4-7)

Discussion

This exploratory study of student nurses' use and perceptions of alternative medicine has identified patterns and themes that may well contribute to the discussion on the attitudes of health-care professionals towards AM. We believe that a focus on student nurses is justified since the perceptions of the new generation of health-care practitioners are likely to influence the future direction of health care. The receptiveness of nursing apprentices to AM may play a role in dictating how and to what extent AM will interface with allopathic medicine in the future. How personal use of and attitudes towards AM affect nurses' relations with clients, however, remains an empirical question. In their study with nurse practitioners, Hayes and Alexander (2000) found high usage rates of AM, with two thirds of participants having "recommended or referred clients for one or more alternative modalities" (p. 52). The present findings suggest that personal use and application in practice may be correlated, although the actual link requires further examination. A valuable topic for future research would be specifically how nurses' personal use of and attitudes towards AM affect their advice and recommendations to clients.

Responses to questions in the first research area, AM usage, reveal that most of the sample had used one or more types of AM. These fairly high usage rates correspond with those found in studies with graduate nurses (e.g., King et al., 1999). The use of a small, non-random sample in the present investigation obviously precludes detailed comparison with the results of studies that used much larger samples and different methodologies. Nevertheless, there is some indication that student nurses' willingness to try AM matches that of practising nurses. This correspondence could be tested rigorously in future studies that use larger representative samples. High rates of AM usage by practising and student nurses might be partly related to nurses being predominantly female. In a Canadian study, McClennon-Leong and Kerr (1999) found that AM usage rates were highest among women 24 to 39 years of age. What is most interesting in terms of the present study, however, is the fact that high AM usage is one indicator of receptiveness to unconventional medicine. The fact that a majority of the respondents who had tried AM were either fully or somewhat satisfied with the results is a further sign of receptiveness to at least some unconventional therapies.

The most common alternative therapies used by the respondents were herbal medicine, massage, and chiropractic. This result fits with the findings reported by Eisenberg et al. (1998) in their well-known study of

AM usage among the general public. It is likely that herbal, massage, and chiropractic therapies are among the better known and more accessible therapies (as opposed to Ayurveda therapy, Colon Hydro therapy, and other, more esoteric treatments) and therefore more widely used. Some unconventional therapies may have more legitimacy and acceptance than others. Hence caution must be exercised. It should not be assumed that endorsement of some forms of AM implies wholesale acceptance of all unconventional therapies. It is worthy of note that some studies of AM usage have employed a checklist closed-ended format to investigate which therapies are most widely used (e.g., Eisenberg et al., 1998; King et al., 1999), whereas in the present study we used an open-ended question to elicit such information. An advantage of the latter technique is that it allows researchers to capture how respondents define and give meaning to phenomena and thus more faithfully represents the respondents' worldview, whereas the choice format risks imposing the researchers' definitions on the participants. We were interested in finding out how our study population conceptualized "alternative medicine."

The second research area yielded information on respondents' views concerning the effectiveness of AM. A significant number of respondents (55, or 72%) held positive attitudes about its effectiveness. A minority of those in this category held an unqualified belief in the effectiveness of AM, whereas most believed that it is effective under certain conditions. A total of 19 respondents were unsure about the effectiveness of AM and only two suggested that it is ineffective. We interpret these findings as indicating generally positive attitudes towards AM.

In addition to showing generally receptive attitudes towards AM, the data suggest that many student nurses approach the subject somewhat cautiously and critically. Those in the unsure category (n = 19) seemed to have adopted a "wait and see" attitude regarding effectiveness, whereas 42 respondents clearly specified the conditions under which AM would be effective, mentioning, for example, the importance of believing in the therapies, proper use of the therapies, use in conjunction with conventional approaches, and practitioner qualifications. These findings show a tendency for student nurses to apply critical thinking skills when it comes to evaluating AM. The source of these critical thinking skills remains unknown. It could be the nursing curriculum of this particular program, which includes a philosophy course. However, if critical thinking skills were curriculum-driven one would expect third- and fourthyear students to exhibit more of these skills than first- and second-year students, and, as noted above, there were no discernible differences in responses among students in different years of the program. It is also possible that those entering post-secondary studies have already developed some ability to think critically. In addition, nursing students in this particular program take a number of non-nursing courses that encourage critical thinking.

Overall, the findings from this initial, exploratory study show a generally receptive attitude towards the use of alternative modalities. Other researchers, such as King et al. (1999), have also found that nurses tend to hold favourable opinions about alternative or complementary therapies. We offer some reasons for these receptive attitudes among nursing students:

A move away from hospital-based nursing education. Nursing education programs have increasingly moved out of hospital settings into universities and colleges. Education that is solely hospital-based may serve to socialize students to focus exclusively on the allopathic model. In the setting in which the present study was carried out, nursing students begin their practical training in the community. This in itself may promote openmindedness to other treatment options, partly because trainees in community settings are likely to encounter clients who rely on a variety of treatment options.

Introduction of AM into the nursing curriculum. There has been a call for nursing educators to incorporate AM into nursing curricula (see Melland & Clayburgh, 2000; Reed et al., 2000). Thus modern-day nursing students may be more knowledgeable and accepting of such therapies than their predecessors. The setting in which the present study was carried out has, in recent years, been including alternative therapies as part of the nursing curriculum.

Greater awareness and acceptance of AM among the public. Broader definitions of health, such as that proposed by the World Health Organization (cited in Matcha, 2000, p. 108), have been circulating for some time. Many members of the public have been exposed to these definitions, regardless of their level of education. Also, because of the increasing media attention to AM, today's general public may be familiar and comfortable with it (Goldstein, 2000). Even before they enter nursing school, therefore, nursing students will have formed opinions about AM and will be familiar with some of the more popular therapies.

Self-selection. A reviewer of an early draft of this paper suggested that students who enter nursing education might be self-selected. They might be inclined to accept broader definitions of health that allow for the use of alternative therapies. As Goldstein (2000) suggests, holistic health care may be conducive to acceptance of some alternative therapies. Whether this self-selection process holds true, however, remains an empirical question. The attitudes of students before they enter nursing education may be another topic worthy of investigation.

Limitations and Clinical Implications

It is our hope that this study will contribute to the literature on nurses' relationship to alternative medicine. However, we caution against extrapolating beyond the data since this investigation was exploratory, was confined to one setting, and used purposive rather than representative sampling. The findings should ultimately be rigorously tested with a larger, more representative sample of nursing students from a broader geographical area. The lower-than-expected response rate made it difficult for us to conduct year-by-year comparisons. Future studies might use larger samples that permit such comparison, since attitudes might change with more exposure and training. The link between personal use or attitudes and professional practices also needs further investigation. Notwithstanding these limitations, however, this study has gone some way towards addressing the research lacunae in student nurses' attitudes regarding AM.

The finding that some student nurses have favourable, yet critical, attitudes towards AM, whatever their source, could be explicitly addressed in nursing curricula as a basis for increasing and refining knowledge of these alternative modalities. Extant research findings on which therapies may be useful and which may be harmful should be addressed in nursing education. It will undoubtedly be more beneficial to future clients to build upon the existing critical stance towards AM than to accept such therapies wholesale.

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