Complementary Therapies in Clinical Practice 20 (2014) 302–310

Contents lists available at ScienceDirect

Complementary Therapies in Clinical Practice

journal homepage: www.elsevier.com/locate/ctcp

Psychosocial factors that predict why people use complementary and alternative medicine and continue with its use: A population based study

P. Thomson [a, *], J. Jones [b], M. Browne [c], S.J. Leslie [b, d]

[a] School of Health Sciences, BG Bomont Building, University of Stirling, Stirling Campus, Stirling FK9 4LA, Scotland, UK
[b] School of Health Sciences, Centre for Health Science, University of Stirling, Highland Campus, Old Perth Road, Inverness, IV2 3JH, Scotland, UK
[c] School of Human, Health and Social Sciences, Central Queensland University, Bundaberg Campus, University Drive, Branyan QLD 4670, Australia
[d] Cardiac Unit, Raigmore Hospital, Inverness IV32 3UJ, Scotland, UK

Keywords:
Complementary and alternative medicine (CAM)
Perceived control
Cognitive style
Spirituality
Openness

A B S T R A C T

Studies have explored the predictors of CAM use but fewer data explain the psychosocial factors associated with this and why people continue with CAM.
Aims: To examine the psychosocial factors that predict CAM use; to explore the predictors of continuing with CAM.
Design: A cross sectional survey.
Methods: 1256 adults were interviewed as part of 2012 Queensland Social Survey. We included questions about CAM, perceived control, cognitive style, spirituality and openness. Relationships were explored using bivariate and multiple logistic regression.
Results: 79% of people had used CAM in the last 12 months. Socio-demographics, health behaviours, spirituality, openness and prescribing sources were the strongest predictors of CAM use. General health, chronic illness and prescribing sources predicted continued CAM use.
Conclusion: There was high CAM use in Queensland, Australia. Personal characteristics and psychosocial factors need to be considered as part of the individual's holistic assessment and on-going care.

1. Introduction

The percentage of the general population that use CAM is increasing [1–5], although rates of CAM use reported in the literature vary widely from 10 to 52% [4–10]. There is a lack of consensual definition of what constitutes a CAM practice. CAM encompasses a wide variety of health-related philosophical approaches to disease [11]. Some CAM modalities are practitioner delivered (e.g. acupuncture, homeopathy, reflexology, massage) [12] and others involve self care practices (e.g. homeopathic remedies, herbal medicines, vitamins).

Studies have shown that being female [1,3,4,6,13–18]; middle aged [19,20]; employed [3,6]; having a higher household income [1,3,5–8,15]; more education [1,6,14,15,19]; particular ethnicity [19,20]; and geographic location [1,3,4,15,21] are associated with increased CAM use. Other factors include positive health behaviours such as not smoking, eating a healthy diet and being physically active; and preventative strategies such as stress management and avoiding excessive drinking are associated with increased CAM use [4,22]. Also associated with increase CAM use are poorer health status [7,19–21,23], and chronic health problems [5,15,24–27] and greater perceived control over health [15,28].

Hildreth et al. (2007) and Astin (1998) found that some people view their health as a reflection of religious and spiritual beliefs [19,29]. Religiousness has been defined as a form of subscription to institutionalised doctrines or beliefs [30], whereas spirituality is described as adhering to the notion that there is an unknown 'essence of the human person' [31], or a belief in a 'transcendental force' [32]. Hildreth et al. (2007) found that self-rated spirituality but not religiosity was associated with greater likelihood of being a CAM user [29]. Ellison et al. (2012) identify that individuals high in spirituality were more likely to use CAM, but religiosity was negatively related to CAM use [33]. Survey findings from the US indicate that after controlling for established predictors of CAM use, such as education and personality, both spirituality and religiousness were associated in unique ways with using CAM [33]. It is also considered that post-modern lifestyles

* Corresponding author. Tel.: +44(0) 1786 466396.
E-mail address: patricia.thomson@stir.ac.uk (P. Thomson).

http://dx.doi.org/10.1016/j.ctcp.2014.09.004
1744-3881/

and values, such as feminism and vegetarianism, as well as spirituality positively predict using CAM. This suggests a philosophical mind-set which values holistic balance and personal growth which is congruent with CAM use [34].

The personality dimension of openness to new experiences is also associated with an increased use of CAM [35,36]. Openness is one feature of the well-established Five Factor Model [37], which describes the extent to which an individual is open to new ideas, approaches and experiences [37,38]. This trait is a distinct dimension [29], one not usually associated with increased conventional care use. Openness, spirituality and mood attention are also associated with people decisions to use CAM and to use most types of CAM [36].

Fewer studies have explored the reasons for continuing with CAM use and previous data have been limited as it focuses primarily on practitioner delivered CAM. Available literature indicates that interpersonal (interactions with practitioners); physical (sensations such as touch or pain during treatment); affective (empowerment); and cognitive (beliefs about treatment) [35,37] factors are influential in continued CAM use. Sirois and Gick (2012) have found committed CAM users to be more motivated by medical need, such as chronic pain [35]. Health-aware behaviours also predict continued use of CAM since greater experience may reinforce an awareness of and the practice of healthy behaviours [35].

Still less is known about the potential influence of 'cognitive style' and its association with CAM use, and peoples' reasons for continuing with CAM from the perspective of consumers. Cognitive style describes one's preference towards fast, heuristic thinking (intuitive) versus slow, deliberate and logical thinking (analytical) [39]. Such information may help minimise the risks associated with impulsive decision making and help promote shared decision making with respect to CAM and on-going care [40,41].

This current study aimed to examine the psychosocial factors that predict CAM use; and to explore the predictors of continuing with CAM in the adult population of Queensland, Australia.

2. Methods

2.1. Design and sample

This cross-sectional study employed data from the 2012 Queensland Social Survey (QSS) [42]. In a linked paper, we explored the factors associated with intention to try CAM before conventional medicine and the predictors of initially seeking CAM in the same population [43]. A two-stage stratified sampling strategy was used to randomly select households and individuals. The sample was derived from the commercially available Electronic White Pages using a computer program. Within each contacted household, one eligible person was selected for the interview based on age (18 years or older), sex and availability. Survey estimates of sampling error for the total sample of 1256 showed this was accurate within ±2.8 percentage points at a 95% CI. The PRL used the index of dissimilarity for age distributions to provide a measure of sample representativeness [44]. The most recent Australian Bureau of Statistics [45] census data was used for comparison with the 2012 QSS sample.

2.2. Measures

The 2012 QSS contained questions on socio-demographics, health status, personal health behaviours and chronic health problems. We added questions/statements about CAM (Appendix 1).

2.2.1. Socio-demographics

Age was originally categorised as: 18–24 years, 25–34 years, 35–44 years, 45–54 years, 55–64 years and 65 or older (later recoded as under 55 and 55^{+} years to allow for additional statistical analysis). Marital status was classified as married, de facto (cohabitating), separated/divorced, widowed and single (recoded as married/partnered and unmarried/un-partnered). Employment was defined as being in paid employment in the previous week or not, categorised as employed (full-time), employed (part-time/casual), unemployed, retired/pensioner, student and home duties (recoded as employed and not employed/no response). Years of education, place of residence, household income and religion were identified; and country of birth was recorded as Australia or other.

2.2.2. Perceived health status

General health was assessed using one item from the Healthy Days Core Module [46]. Physical health and mental health and combined physical and mental health were assessed by identifying the number of days the individual had not been good in the last 30 days. Respondents were also asked to identify if they had a chronic health problem.

2.2.3. Health behaviours

Smoking status, height and weight, daily fruit and vegetable consumption, fast food consumption were identified by self report. BMI was calculated from height (in centimetres) and weight (in kilograms). Alcohol consumption, considering all types of alcoholic beverages, was identified according to how many times during the past 30 days the respondents had 6 or more drinks on an occasion [46]. Self-reported leisure-time physical activity was identified in accordance with the Active Australia physical activity scale [47], recoded as sufficient (non-sedentary) if the respondents had spent any time in physical activities i.e. walking, moderate or vigorous intensity activities in the week prior to the survey, or insufficient (sedentary) if they had spent no time in these activities.

2.2.4. Complementary and alternative therapies

The CAM questions/statements identified were derived from previously validated questionnaires [48] and from studies that have distinguished between people who have used CAM from those who have not [4,6,49], the reasons why people use CAM [5,13,19–21,26,50], and continue with its use [15], to include such factors as perceived control over health [50], cognitive style [39], spirituality and religion [29,33], and openness to new experiences [35,36]. In the survey, CAM is defined as both practitioner delivered therapies and self-care practices provided alongside or instead of conventional medicine.

2.3. Data collection

The use of ethical research protocols and trained interviewers helped ensure the quality of data collected. Pilot testing by trained interviewers on 56 randomly selected households allowed modification to the final questionnaire. Interviewing for the main survey (second round) began in October 2012 and was completed by December 2012. Approval for the study was obtained from the Human Ethics Research Panel at CQUniversity before administration to the general public (Project: H10/06-121, QSS 2012). All subjects gave informed consent to the research.

2.4. Statistical analysis

Data analyses were performed using Predictive Analytics Software (PASW) statistics version 19. $P < 0.05$ was taken to indicate statistical significance. Descriptive statistics were computed for the CAM and cognitive style questions/related statements, and correlations examined using Spearman's rho. Bivariate relationships