Journal of Taibah University Medical Sciences (2018) ■(■), 1–6

Taibah University

Journal of Taibah University Medical Sciences

www.sciencedirect.com

Original Article

Prevalence of the use of complementary and alternative medicine in an eastern Indian population with emphasis on tribal/ethnic minority groups

Jayanti Ray, DNB [a], Debadatta Chakrabarty, MD [b], Rudrajit Paul, MRCP [c,*] and Kunal Som, MD [d]

[a] *Department of Medicine, Medical College Kolkata, 88, College Street, Kolkata, West Bengal, India*
[b] *Department of Community Medicine, Medical College Kolkata, 88, College Street, Kolkata, West Bengal, India*
[c] *Department of Medicine, Midnapore Medical College, Paschim Medinipur, West Bengal, India*
[d] *Salboni Rural Hospital, Paschim Medinipur, West Bengal, India*

Received 19 December 2017; revised 3 April 2018; accepted 3 April 2018; Available online ■ ■ ■

الملخص

أهداف البحث: يشمل الطب التكميلي والبديل" العلاجات" المختلفة التي لم يتم التعرف عليها عند الطب العلمي الحديث. ولكن استخدام الطب التكميلي والبديل معروف إلى حد ما في الأمراض المزمنة مثل السكري. هناك حاجة للبيانات عن استخدام الطب التكميلي والبديل، وذلك لفهم السلوك الصحي للناس وأيضا، لتوقع الآثار الجانبية المحتملة. في هذه الدراسة، نهدف إلى إنتاج بيانات عن نمط استخدام الطب التكميلي والبديل في عينة من سكان الهند الشرقية.

طرق البحث: أجري هذا المسح – المقطعي الكمي بالمستشفى على مرضى بالغين. وقد أجريت هذه الدراسة في وقت واحد في المستشفى الجامعي الحضري والمستشفى الريفي. وتم جمع البيانات عن الخصائص الديموغرافية للأشخاص ودوافعهم لاستخدام الطب التكميلي والبديل، إن وجدت.

النتائج: كان لدينا ٤٤٢ شخصا، وينتمي ٥٠٪ إلى الفئة العمرية ٣١-٥٠ عاما. من بينهم ٢٦.٧٪ ينتمون إلى السكان القبليين. ومن بين الأشخاص في الدراسة، ٣٦.٧٪ استخدموا الطب التكميلي والبديل خلال العام الماضي و٥٧.٢٪ من الأشخاص استخدموا الطب التكميلي والبديل في حياتهم من قبل. كانت آلام الجسم وعسر الهضم أكثر الأعراض شيوعا لاستخدام الطب التكميلي والبديل. الميل لاستخدام الطب التكميلي والبديل كان أعلى كثيرا بين السكان القبليين، في تحليل الانحدار اللوجستي أيضا، وكان الانتماء إلى السكان القبليين هو العامل الديموغرافي الوحيد المرتبط باستخدام الطب التكميلي والبديل في العام الماضي أو استخدام الطب التكميلي والبديل في السابق.

الاستنتاجات: استخدام الطب التكميلي والبديل لأعراض معينة كان كبيرا جدا في البحث السكاني، خصوصا بين السكان القبليين.

الكلمات المفتاحية: قبلي؛ الطب التكميلي والبديل؛ العلاج بالأعشاب؛ انتشار

Abstract

Objectives: Complementary and alternative medicine (CAM) includes various therapies that are not recognized by modern scientific medicine. However, in chronic diseases, such as diabetes, the use of CAM is quite common. Data on the use of CAM are needed to understand the health behaviour of individuals and to identify possible side effects. In this study, we aimed to obtain data on the pattern of CAM use in a population in eastern India.

Methods: This was a hospital-based quantitative cross-sectional survey involving adult patients. The study was conducted simultaneously in an urban university hospital and a rural hospital. Data on the demographic characteristics of the participants and their reasons for CAM use were collected.

Results: In total, 442 participants were included in the study, and among them, approximately 50% were aged 31–50 years. Moreover, around 26.7% of the participants belonged to the tribal population, 36.7% used CAM within the last year, and 57.2% used CAM in their lifetime. Body ache and dyspepsia were the most common indications for CAM use among the participants. The pattern of CAM use was significantly higher in the tribal population ($p < 0.001$). On logistic regression analysis, being part of the tribal

* Corresponding address: 15/5 Bose Pukur Road, Kolkata, 700039, West Bengal, India.
E-mail: docr89@gmail.com (R. Paul)

Peer review under responsibility of Taibah University.

ELSEVIER Production and hosting by Elsevier

 https://doi.org/10.1016/j.jtumed.2018.04.001

Please cite this article in press as: Ray J, et al., Prevalence of the use of complementary and alternative medicine in an eastern Indian population with emphasis on tribal/ethnic minority groups, Journal of Taibah University Medical Sciences (2018), https://doi.org/10.1016/j.jtumed.2018.04.001

population was the only demographic factor related with CAM use within the last year (odds ratio [OR]: 3.205) or with lifetime CAM use (OR: 2.885).

Conclusion: The use of CAM for certain symptoms was quite significant in the study population, particularly in the tribal population.

Keywords: Complementary and alternative medicine; Herbal therapy; Prevalence; Tribal

Introduction

Complementary and alternative medicine (CAM) encompasses modern or rejuvenated ancient practises that are claimed to have preventive or curative medical effects.[1] Generally, these practices are not recognised in medical science. Moreover, they are not based on evidence or sound scientific hypotheses.[1] CAM includes various therapies such as homeopathy, massage-based therapy, naturopathy, diet therapy, and other similar practices. For the purpose of this study, any form of medical therapy that is not included in modern scientific guidelines or not recommended by major scientific associations has been classified under CAM.

The use of CAM significantly increased worldwide within the past century. For example, in the USA, a national health survey showed a considerable increase in the popularity of different CAM therapies, such as acupuncture and naturopathy, over the last few years.[1] This was observed in different age groups among almost all social strata. In the UK, a national health survey also showed quite high levels of CAM use.[2] In the survey conducted in the UK, individuals often used prescription drugs along with CAM.[2] Factors, such as poor mental health and lack of perceived social support, were related with CAM use.

The use of CAM is also quite high in low- and middle-income countries in Asia. A recent review found that almost half of the pregnant women in these countries used herbal medicines that had unknown or potentially harmful side effects.[3] However, the use of alternative therapies is often not documented, and their effects remain unknown. Thus, the study on the pattern of CAM use in a population is important for identifying their possible side effects and drug interactions. Physicians rarely discuss or ask about the use of such alternative therapies during consultations. Thus, this lack of enquiry keeps its use unknown to physicians and prevents an open discussion about their relevance in modern therapy.

Data from the different parts of India have shown that the use of CAM is quite high.[4] For example, a survey among patients with cancer in Delhi, the capital of India, found that more than 30% of individuals used some form of CAM.[4] Such parallel use of CAM is also observed in individuals with other major illnesses such as diabetes and asthma. The biological nature and efficacy of these therapies are often unknown. Moreover, data on the use of CAM are not available from all parts of the country. In a vast country, such as India, with different cultural practices and religious beliefs, the pattern of CAM use is likely to vary within the region. In specific populations, such as tribal and other ethnic minorities, that are known to use natural remedies, data on CAM use are often limited.

Thus, loco-regional data on CAM use is needed to identify the health behaviour of individuals. These data can be used to identify the vulnerable section of the population who are prone to use ineffective CAM therapies and to plan for local health education measures. For the ethnic minority groups who often have limited access to healthcare, such data are even more important for understanding their healthcare-seeking behaviour and beliefs about natural remedies.

In this study, we aimed to obtain data on the pattern of CAM use in a population in eastern India, including tribal and ethnic minority groups. For the purposes of this study, the term tribal is used to denote indigenous communities recognized by the law of India.[5] The members of such communities are provided with government certificates and identity documents indicating that they are scheduled tribes.

Materials and Methods

This study was carried out at a tertiary-care urban hospital and rural hospital in eastern India. The study was conducted for 2 months between 1 October 2017 and 30 November 2017. This was a hospital-based cross-sectional survey involving adult (aged >12 years) patients attending the outdoors. Informed consent was obtained from participants older than 16 years. For those aged between 12 and 16 years, informed consent was obtained from a parent or person with parental responsibility, which is similar to the international protocol for including minors in a medical study. The study protocol was approved by the institutional ethics committee of the tertiary-care hospital. The local health administrator of the rural hospital, who is the block medical officer of health, also approved the study. The rural hospital is located in a region with a considerable population of tribal communities.[6]

The prevalence rate of CAM use in the general population in previous studies ranged from 30% to 40%. Considering this as a reference for 80% power, 5% precision, and 95% confidence interval (CI), the projected sample size was 370,[7] and it was increased by 20% to account for some data loss and faulty data. Thus, the final proposed sample size was 440.

This was a questionnaire-based survey. The questionnaire was structured and modelled based on similar surveys conducted earlier in the country.[8] It was pilot tested on a group of 30 volunteers where validity and reliability were established (Cronbach's alpha: 0.79). The first part of the questionnaire involved the demographic data of the participants, such as age, gender, educational level, occupation, and whether they belonged to any ethnic minority. The second part contained questions about the use of CAM, influencing

Please cite this article in press as: Ray J, et al., Prevalence of the use of complementary and alternative medicine in an eastern Indian population with emphasis on tribal/ethnic minority groups, Journal of Taibah University Medical Sciences (2018), https://doi.org/10.1016/j.jtumed.2018.04.001