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Research Paper

Prevalence and pattern of traditional medical therapy utilisation in Kumasi metropolis and Sekyere south district, Ghana

Razak Mohammed Gyasi*, Lawrencia Pokuah Siaw, Charlotte Monica Mensah

Department of Geography and Rural Development, Faculty of Social Sciences, Kwame Nkrumah University of Science and Technology, Kumasi, Ghana

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ABSTRACT

Ethnopharmacological relevance: Whilst over three-quarters of the world's population continues to use traditional medicine (TRM) with an increasing trend globally, limited data exist in the Ashanti Region regarding TRM utilisation. This study espoused a retrospective cross-sectional quantitative approach to examine the prevalence and pattern of TRM use among the general population in the Kumasi Metropolis and Sekyere South District, Ghana.

Materials and methods: A sample of 324, drawn through systematic random sampling was used. The main instrument for data collection was formal face-to-face interviewer-administered questionnaire. Data were analysed using Chi-square and Fisher's exact tests from the PASW (*V*.17.0) with $p \leq 0.05$ as significant.

Results: The survey found that TRM use alongside conventional medicines was pervasive with prevalence of 86.1%. Biologically-based therapies (88.5%) and distant prayer interventions (58.4%) were commonly used modalities through the influence of families (50.3%), friends (19.4%) and the mass media (18.0%). Whilst self-administration and purchases from pharmacy shops remained important sources of TRM, TMPs' consultation was less credible ($p < 0.005$). The disclosure rate of TRM use to health care professionals remained low (12.2%; $p < 0.001$).

Conclusion: Concomitant TRM use with conventional therapies without disclosure may interfere with the potency of treatment regimen and result in drug interactions. Inclusion of alternative medicines on the National Health Insurance Scheme's drug plan will fortify monitoring and professional administration of TRM. Information as regards TRM use needs to be incorporated into clinical and medical practice, hence the need to prioritise patient-physician communication.

1. Introduction

The use of traditional medicine (TRM) in the diagnoses, prevention and treatment of a plethora of diseases is pre-historic and dates back into antiquity. Virtually every culture globally has relied on it to treat and prevent one ill-health or another. Plants, animal products and mineral substances have been a source of medicinal agents for thousands of years and still continue to be an abundant source of novel therapeutic agent (Sen et al., 2011; Pan et al., 2014). TRM is characterised by a holistic approach to the spirit–mind–body concept of health, embracing people, living and inanimate objects in an inseparable whole from which all beings derive their living and healing forces. TRM practice involves a multifaceted combination of activities, order of knowledge, beliefs and customs to generate the desired effects for the diagnosis, prevention or elimination of imbalances in physical, psychological and social wellbeing (Gyasi et al., 2011). These partly elucidate the current unprecedented increase in TRM utilisation the world over. Moreover, the lingering course of perpetual anguish of diseases and threatening death associated with it and the dissatisfaction of conventional medical care have called for the upsurge trend in TRM use.

Evidence from studies carried out globally has established beyond reasonable doubt that TRM use is widespread and the prevalence varies widely among populations (Ezeome and Anarado, 2007; Oshikoya et al., 2008; Barnes and Bloom, 2008; World Health Organisation WHO, 2011; Gyasi et al., 2011, 2013, 2014; Okoronkwo et al., 2014). In her introductory remarks of the *World Health Organisation* (*WHO*) *Traditional Medicine Strategy 2014–2023*, the Director-General of WHO, Dr. Margaret Chan, reiterated that the use of TRM has expanded globally and has gained popularity during the last decade. TRM is either the mainstay of health care delivery or serves as a complement to it (WHO, 2013:7). The World Medicines Situation has reported unequivocally that between 70% and 95% of the population in

* Correspondence to: Department of Geography and Rural Development, Faculty of Social Sciences, Private Mail Bag, University Post Office, Kwame Nkrumah University of Science and Technology, Kumasi, Ghana. Mobile: +233 20 854 5052.
E-mail addresses: binghi_econ@yahoo.com (R.M. Gyasi), lawnimo@yahoo.com (L.P. Siaw), charlottemensah2002@yahoo.ca (C.M. Mensah).

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developing countries consume TRM and that every culture in the world thrives on certain TRM modality (WHO, 2011:3). In Africa, various studies found that up to 90% Ethiopians and Burundians, 85% South Africans, 75% Malians, 70% of people of Rwanda, Benin and Ghana rely on TRM for their primary health care needs (UNDP, 2007; WHO, 2011:5; Kasilo et al., 2013; Apt, 2013).

TRM use remains universal in countries where conventional medicine is predominant in the national health care system. In Singapore and the Republic of Korea, the WHO (2013: 27) estimates that about 76% and 86% of the respective populations still commonly use TRM. Other national reports posit that almost every Chinese has ever used at least one form of TRM with more than 90% prevalence. It is estimated that 68.9% of the adult Australian population use various forms of traditional medical remedies (WHO, 2012a). Similar trends are also occurring in economically advanced countries including Canada (65%) (Wiles and Rosenberg, 2001; McFarland et al., 2002; Andrews and Boon, 2005; Esmail, 2007) and USA where surveys found that almost 45% of American adults use some form of complementary and alternative medicine (CAM) (Bell et al., 2006; Bercovitz et al., 2011; WHO, 2011). In Europe, TRM use ranges from 42% of the population in Belgium to 90% in the United Kingdom (Metcalfe et al., 2010; Kasilo et al., 2013). According to European Information Centre for Complementary and Alternative Medicine, over 100 million Europeans are currently CAM users, with one fifth regularly using CAM and the same number preferring CAM-related health care. The most common complementary health approaches used among the Europeans include non-vitamin, non-mineral dietary supplements, chiropractic or osteopathic manipulation, yoga and massage therapy. Others are homoeopathy, phytotherapy, herbal medicine, anthroposophic medicine, naturopathy, traditional Chinese medicine, osteopathy and chiropractic interventions (Barnes and Bloom, 2008).

Despite the difficulty in accessing the market size for TRM partly due to the diversity of regulations and regulatory categories for products, available data suggest that the market for TRM is substantial. van Andel et al., 2012 found that there has been an increased international trade in herbal medicines; a significant world market worth an estimated $83 billion in 2008 (Van Andel and Havinga, 2008; WHO, 2011). According to National Development and Reform Commission of China (2013), the output of Chinese *materia medica* was estimated to amount US$83.1 billion in 2012, an increase of more than 20% from the previous year. In the Republic of Korea, annual expenditures on TRM were US$4.4 billion in 2004, rising to US$7.4 billion in 2009 (WHO, 2012b). Out-of-pocket spending for natural products in the United States was US$14.8 billion (Nahin, 2009). TRM, therefore, reserves a great deal of economic importance. However, loss of biodiversity, over-exploitation and unscientific use of medicinal plants, industrialization, biopiracy, globalisation together with lack of regulation and infrastructure are the major impediments to the growth of herbal medicine (Sen et al., 2011; Vandebroek and Balick, 2012).

A considerable proportion of TRM up-takers frequently consult traditional medical practitioners (TMPs) of different categories for various forms of medicinal products and therapies (Peltzer et al., 2008). In a study of complementary and alternative medicines use in children with chronic health conditions, Oshikoya et al. (2008) observed in Lagos, that nearly 85% of consumers of TRM in Nigeria consult TMPs for social and psychological needs partly because of dissatisfaction with conventional medical care. In Ghana, TMPs are accorded the quintessence of psychosocial and spiritual wellbeing and mostly are the first point of call for all forms of diseases (Mensah and Gyasi, 2012; WHO, 2013). Notwithstanding, majority of the TMPs have not registered their practices and products by the Food and Drugs Authority and the Traditional Medicine Council. Indeed, this raises safety and public health concerns in the practice of TRM.

Whilst most patients access TRM concomitantly with the conventional therapies for specific ailments (Leonard et al., 2004; Kuan et al., 2011; Chang et al., 2011; Hughes et al., 2012; Yeon et al., 2014), limited proportion divulge TRM use to their general health care professionals. In a study of traditional medicine use among HIV/AIDS patients in Kumasi Metropolis, Gyasi et al. (2013), found that 93.9% of respondents did not disclose TRM use to their orthodox medical providers. Egede et al. (2002) found fewer than 40% of Americans with diabetes informing their physicians about CAM use. In Taiwan, Hsu et al., 2008 found that 35.4% of depression patients had discussed CAM use with their psychiatrists. Similar results were observed in South Africa (Babb et al., 2007; Peltzer et al., 2008), China (Ma et al., 2008), Uganda (Langlois-Klassen et al., 2007) and UK (Vickers et al., 2006). Although some reasons for non-disclosure of TRM use are cited as non-inquiry by the health care providers, previous experiences or fear of physicians' reactions (Vickers et al., 2006; Ezeome and Anarado, 2007; Chang et al., 2007), limited discussion of these reasons are offered.

Many Ghanaian studies on TRM use have focused on disease- and population-specific dynamics (Kretchy et al., 2013; Gyasi et al., 2013). A better understanding of the prevalence and the pattern of TRM use among the general population have become critical following a global upsurge of TRM utilisation. Moreover, there is chronic dearth of research into the extent of TRM use, sources and forms of TRM and disclosure of TRM use to health care professionals in the Ashanti Region. The current population-based study, therefore investigated the prevalence, patterns of TRM use and concomitant use of TRM with conventional treatment among adult population in Sekyere South District and Kumasi Metropolis of Ashanti Region, Ghana.

2. Methods

2.1. Study design and participants selection

This retrospective cross-sectional study employed quantitative approach to analyse the prevalence and patterns of TRM use in Sekyere South and Kumasi Metropolis of Ashanti Region, Ghana, between March, 2013 and January, 2014. To reflect the vast differences in urbanity[1], population characteristics, demographic and socio-economic discrepancies, rural and urban settings were included in the survey. Settlements that met the rural or urban criterion were enumerated and numbered: “yes” or “no”. A continuous probability selection without replacement was then carried out until the 10 settlements labelled “yes” were obtained. For rural Sekyere South District, the study settlements selected were Akrofonso, Bedomase, Bepoase, Boanim and Domeabra whilst Atonsu, Ayigya, Nhyiaeso, Old Tafo and Suame were selected from the Kumasi Metropolis (see Fig. 1). Community members who had attained 18 years or older (who are capable of choosing treatment options) and had used TRM and the services of TMPs or not during the past 12 months were eligible to be recruited for the study.

Given the overall population of the study area as 2,129,073 (GSS, 2012), and the estimated proportion of this population that depends on TRM for their primary health care, a representative sample size of 324 was drawn from the target population based on the Lwanga and Lemeshow's (1991) formula for sample size estimation for health research: $n = (Z\alpha)^2 \times [P(1-P)]/d^2$, where

[1] The classification of localities into ‘urban’ and ‘rural’ was based on population size. Localities with 5000 or more persons were classified as urban while localities with less than 5,000 persons were classified as rural (Ghana Statistical Service, 2012).