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Traditional medicine among people of Pakistani descent in the capital region of Copenhagen

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ABSTRACT

Ethnopharmacological relevance: Studies show that ethnic minorities continue to use their cultural traditional medicines also after migration to the West. Research in this field is necessary, given that little is known about traditional medicines' impact on health-related problems. This study sheds light on the issue through a qualitative study among ethnic Pakistanis residing in Denmark.

Aim of the study: The study addresses perception, knowledge and attitudes regarding the use of medicinal plants among Pakistanis living in Copenhagen. We furthermore document and identify the medicinal plants used in households.

Materials and methods: Data were collected through in-depth, semi-structured interviews with sixteen ethnic Pakistanis aged 30–80 years. Interviews were transcribed verbatim and analysed through Emerson's two-phased analysis method. Medicinal plant products in the interviewees' households were collected, photographed, identified and deposited at Museum of Natural Medicine at University of Copenhagen.

Results: A total number of 121 Pakistani traditional medicines were identified, and found to represent both medicinal plants and foods. The average number of quoted Pakistani Traditional Medicines was 18 (N=16). Interviewees independently reported the same traditions for preparation and consumption of Pakistani traditional medicines. Factors that play a role in choosing to use Pakistani traditional medicines are frequent visits to Pakistan, belief in the healing power of *totkas (homemade medicinal preparation)*, religious knowledge and the occurrence of recent illness within the family. Further, the upkeep of traditional use depends on the availability of Pakistani traditional medicines.

Conclusion: The study enhanced understanding of ethnic Pakistanis' perception and continued use of traditional medicines within the household after migration to the West. In the context of Western biomedicine, little is known of the potential toxicity and side-effects of many of the Pakistani traditional medicines found to be used in households in Copenhagen.

1. Introduction

Complementary and alternative systems of medicines including traditional medicines (TM) have been practiced for centuries. They are available all over the world regardless of the availability of western biomedical healthcare. In non-Western countries the use of complementary or alternative medicine (CAM) is encountered to be up to 80%, while around half of the Western world's population is estimated to depend on CAM (Bodeker and Kronenberg, 2002; Shaikh, 2005; Shaikh et al., 2009). The reasons for the use of CAM are considered to be dissatisfaction with Western biomedicine, concerns regarding side-effects of drugs and also personal belief favouring holistic orientation of health (WHO, 2001a; Shaikh et al., 2009). Over the last few decades the interest for CAM has been increasing, particularly in herbal medicines. The use of TM and CAM varies between countries. According to the World Health Organization (WHO) CAMs are used in the prevention, diagnosis and treatment of various ailments. This especially applies in the poorest parts of Asia and Africa where the access to essential drugs is limited. WHO encourage member states to support TMs and formulation of policies with appropriate regulations to promote safe and effective use (WHO, 2001a, 2001b).

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"*Traditional medicine refers to health practices, approaches, knowledge and beliefs incorporating plant, animal and mineral based medicines, spiritual therapies, manual techniques and exercises, applied singularly or in combination to treat, diagnose and prevent illnesses or maintain well-being*" (WHO, 2003). WHO exemplify their definition of traditional medicine systems with traditional Chinese medicine, Ayurveda and shamanistic traditions. Moreover, they define complementary and alternative treatment as: "*a broad set of health care practices that are not part of that country's own tradition and are not integrated into the dominant health care system*" (WHO, 2016; SRAB, 2016).

When using the word *traditional* in this paper it is meant as *health traditions, which the participant perceives to originate from Pakistan*.

Migration gives cause for several challenges in the health-care, partially in regard to health and illness situations, but also in the meeting with the health-care system. The reliance on traditional medicines is rarely studied in Denmark, and thus there is very little knowledge on the determinants for traditional medicine use. The high number of use of traditional medicine among immigrants in other western countries (Sandhu and Heinrich, 2005; Pieroni et al., 2005; Pieroni and Torry, 2007b; Pieroni et al., 2008a; Pieroni and Gray, 2008b; Ceuterick et al., 2008; van Andel and Westers, 2010; Ceuterick et al., 2011; Jennings et al., 2015; Xavier and Molina, 2015) indicates the importance of conducting a similar study in Denmark. This study will seek to identify traditional medicines used among Pakistani descents on household level.

Self-treatment with traditional medicines is a strong part of the Pakistani cultural heritage and plays a crucial role for the majority of the population. However, other reasons for consulting CAM healers are affordable fees, availability of the provider, family pressure and opinion of the community (Shaikh, 2005; Bazmi et al., 2003).

Studies suggest a tendency of medicinal pluralism among ethnic Pakistanis in Denmark. They seek healing from various sources all with different disease explanatory models. They spontaneously use a combination of disease explanatory models and health-care sectors (Mygind, 2006; Rashid, 2006). A Danish register-based study among ethnic minorities showed that the use of medicines for chronical diseases such as cardiovascular diseases, diabetes, schizophrenia and depression was lower than expected. The study suggests this to be due to compliance problems (Søndergård et al., 2009). Another study showed that 65% of ethnic minorities above 50 years did not take their medications as prescribed by their doctor. In the same study it was reported by one third of the interviewees that they take medication which is not prescribed for them, and 50% were reported to be taking medicine which they had brought back from their home countries (Vinther-Jensen and Primdahl, 2010). However, use of traditional medicines is not included in these studies and thus research on attitudes to traditional medicines and compliance behaviour is lacking in the literature.

In this study Kleinman's concept of explanatory model of illness (Kleinman, 1980) was used as theoretical inspiration to develop the interview guide. Interviews were conducted to obtain knowledge on the following research questions and their supplementary questions:

- Which medicinal plants do the users know about?
- What influences their perceptions about medicinal plants?
- How many of the mentioned traditional medicines did they have in their homes?

The aim of the interviews was to get an understanding of recent use and knowledge of Pakistani Traditional Medicines (PTMs), health beliefs and sources of knowledge among Pakistanis living in Copenhagen. It was also within the scope to collect samples of traditional medicines from the informant's homes.

2. Materials and methods

The fieldwork for this study was conducted by first author over a four month period (June 2015-September 2015) in the Capital Region of Copenhagen, Denmark. The methodological approach has been two-fold: i) qualitative research ii) collection of plant medicines.

2.1. Qualitative research

Qualitative research was selected because it generates in-depth understanding of participants' experience, knowledge, feelings, attitudes and motivation (Martin, 2007; Kaae and Traulsen, 2015). This approach was taken to get insight into which values Pakistanis give traditional medicine after migrating to Denmark. All the interviews except two were conducted in the informant's homes.

2.1.1. Recruitment of informants

Participants were recruited from the Capital Region of Copenhagen. This region was chosen as 16.0% of the population is ethnic minorities or descendants (Danmarks statistik, 2012). The Capital region is per 2016 defined as København, Frederiksberg, Dragør, Tårnby, Albertslund, Ballerup, Brøndby, Gentofte, Gladsaxe, Glostrup, Herlev, Hvidovre, Høje-Taastrup, Ishøj, Lyngby-Taarbæk, Rødovre, Vallensbæk (Danmarks statistik, 2007).

Based on the research questions the objective of this study primarily targeted first generation migrants and descendent with interest in traditional medicines. Later the target group was modified to only include individuals who were born in Pakistan. It was within the aim of the project that the informants had first-hand experience with the practises of traditional medicines back home and a desire to share their knowledge.

2.1.2. Sampling

Invitation letters were written in Danish, Urdu and English. Several approaches were taken to recruit informants for the study. Firstly, informants were recruited through GP practices, these were contacted through email and phone, and those practice who were willing to hand out invitations received invitation letter in all three languages by post. Secondly, the invitation letters were sent out to researcher's personal network through Facebook and email. The invitation was also reposted on friends walls and shared in relevant Facebook groups. Announcements were made in the Pakistani community radio channel *Radio Humwatan* as well as at the Friday prayer at Muslim cultural institute. Medical practices spread across the Capital region of Copenhagen was also contacted and provided with invitations letters in all three languages.

As the initial recruitment process was challenged with lack of interest from PTM users it was decided to snowball within social networks. Individuals who were perceived to have high knowledge about PTMs by their socials network were contacted. Purposive sampling is considered to be an effective mean to recruit informants with high levels of knowledge (Rashid, 2006; Jennings et al., 2015).

2.1.3. Data collection

Sixteen semi-structured interviews were conducted and the duration of the interviews varied from twenty minutes to an hour. First author conducted the interviews in Danish, Urdu which is the national language in Pakistan and the dialects Punjabi or Pothwari. English was also used to a lesser extend during these interviews. The interviews were conducted in the informants' homes.

A semi-structured interview guide was prepared with inspiration from Kleinman's concept of explanatory model of illness (Kleinman et al, 1978). The first three interviews were pilot interviews. Here the interview guide was tested in Urdu and Punjabi. The interview guide was initially formulated in English and translated to Urdu. In those interviews where interviews were conducted in dialects the Urdu