Self-medication, home remedies, and spiritual healing: common responses to everyday symptoms in Pakistan

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Minor illnesses are usually treated in home and community contexts. Despite, or perhaps because of, their commonness, responses to minor illness are poorly researched, especially outside developed countries. The aim of this study was to qualitatively explore the range of everyday symptoms and minor illnesses that people in Pakistan might experience and types of responses they make to minor illnesses. The information gathered was to inform the design of a larger project to prospectively explore the responses of people to minor illnesses. Twenty-four participants, aged between 18 and 55 years, were approached through snowball sampling and social networking to take part in in-depth interviews or focus groups. Participants reported a wide range of everyday symptoms, which were then classified based on human physiological systems. Self-care, self-medication, use of home and herbal remedies and spiritual healing were found to be the most common responses to these symptoms. Factors affecting participants’ treatment decision-making included past experience, friends’ or relatives’ experience and advice, family practice, presence of a health professional in the family or circle of friends, and cultural practice. Consulting with a doctor was not a preferred option in treating minor illness. An understanding of how people experience illness and how they make decisions about their responses can inform health services and health policy.

Keywords: traditional remedies; home remedies; minor illness; self-care; self-medication; spiritual healing; developing countries; Pakistan

1. Introduction

Minor aches and transient symptoms are part of everyday life. Different people respond differently to a given symptom, and responses can range from totally ignoring the symptom to immediately seeking medical help. Self-care, using home remedies and consuming traditional and alternative medicines are common responses to symptoms.

Responses to symptoms, or illness behaviour, is the differential perception, evaluation and consequent response to specific symptoms (Mechanic, 1962). Early work explored factors that influence individuals’ decisions to seek medical help for a given illness. These included cultural and family background, social networks, psychological distress, access to healthcare, interpretation of the symptom, the intensity of the symptom, prior illness and medical care experiences, illness beliefs, as well as many other individual and social variables (Berkanovic & Telesky, 1982; Egan & Beaton, 1987; Ford, 1983; Mechanic, Cleary, & Greenley, 1982; Tanner, Cockerham, & Spaeth, 1983).

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Historically, minor ailments have been little researched. However, in recent years there has been increased interest in studying people’s responses to different illnesses including minor illnesses and the process by which they seek medical help (Hunte & Sultana, 1992; Porteous, Ryan, Bond, & Hannaford, 2006; Reeve, 2000). Little of this work has looked at developing countries.

Developing countries have more pluralistic health systems than developed countries and, consequently, an even greater range of options for responding to symptoms. For example, in Pakistan, in addition to typical public and private sectors (Hakim, 1997), there are also homeopaths, traditional/spiritual healers, Greco-Arab healers, herbalists and bonesetters. The interactions between formal and informal healthcare is little known or documented. An understanding of people’s responses to symptoms is important if health promotion programmes and the healthcare system are to be effective. Despite growing literature on these topics in the context of developing countries (ICDDR, 2008; Leyva-Flores, Luz Kageyama, & Erviti-Erice, 2001; Ngokwey, 1995; Van der Geest & Hardon, 1990) very few studies have been seen in Pakistan, with little work on responses to minor illnesses (Anwar, Green, & Norris, 2012).

This qualitative study aimed to produce a near complete list of possible symptoms and minor illnesses that people in Pakistan might experience in everyday life, as well as the possible range of responses that might be made to each symptom or illness. The current study was conducted in part to inform the design of a larger project to prospectively explore the responses of people to minor illnesses using quantitative daily diary methods. The data gathered from that larger project are currently being analysed and written up for publication.

2. Methods

2.1. Study design

This qualitative study used interviews and focus group discussions. Prior to conducting this study ethical approval was obtained from the Human Ethics Committee, University of Otago, New Zealand. Ethics approval is not required by National Bioethics Committee (NBC) Pakistan to conduct observational research.

2.2. Participants

Potential participants were approached through snowball sampling and social networks in Wah Cantt, a small town in the northern part of the province of Punjab, Pakistan. Ten participants were recruited for the in-depth interviews and 14 for the focus groups, as summarised in Table 1. Each participant was compensated with 100 Rupees (approx. US$1) as a token of appreciation for their time.

2.3. Procedure

Ten individual in-depth interviews and two focus groups (one male, one female) were conducted. Due to cultural, traditional, and religious limitations it was not possible to have focus groups with both male and female participants. A qualified female research assistant was trained to conduct the interviews and the focus group with the female participants. Interviews and focus groups with males were conducted by the first author. Individual interviews were conducted following an interview schedule, and focused on participants’ recent experience of any minor illness, their responses to the illness, factors affecting decision-making pertaining to the treatment and reasons for or against consulting with a qualified healthcare professional. Each focus group was conducted in two halves, the first half focusing on listing the most commonly experienced symptoms and minor illnesses that people might experience in everyday life, with the second half having a detailed discussion on each of the reported symptoms as to how people possibly
respond to these symptoms. Though occasionally some chronic conditions were also discussed in both interviews and focus groups, these are not discussed in this paper.

All the interviews and focus groups were conducted in Urdu (the national language of Pakistan) and were recorded. Written informed consent was gained from each participant, prior to the start of the interview/focus group. The audio recordings were then transcribed and translated into English by the first author. Symptoms were grouped by physiological systems, and then potential responses were listed under those headings. Preliminary analysis was completed by the first author, and then discussed with other authors.

3. Results

3.1. Findings of interviews

3.1.1. Symptoms experienced and responses

The most recently experienced symptoms as reported by the participants included nasal bleeding along with cold and flu-like symptoms, persistent cough (later diagnosed as tuberculosis), headache with fever, backache and ear infection, long term flu-like symptoms along with general body pain, sore throat, diarrhoea with vomiting and fever, diarrhoea with fever, diarrhoea only, and menstrual pain along with flu and fever. Three of the participants reported only one symptom and the rest reported more than one.

In order to treat nasal bleeding the participant reported that she had washed her head with cold water attributing the symptom to hot weather.

P1: It might be because of hot weather so I washed my head with cold water but it did not help. Then I went to see the doctor who gave one stitch inside my nose and gave me some tablets and nasal drops.
The participant who experienced persistent cough reported seeking medical help from a primary healthcare centre without trying any home remedy. At the healthcare centre he was given some cough syrup.

P2: I went to the public dispensary (primary healthcare centre) where symptomatic treatment is provided and they do not go in depth. They gave me a cough syrup which I used for many days but it did not help so I went to them again and they referred me to the hospital where I was diagnosed with tuberculosis.

Headache and fever were reported to be treated with analgesics and antipyretics such as paracetamol and mefenamic acid. However one of the participants reported seeking help from a homoeopathic practitioner after he found that paracetamol was not working for him.

P3: I took paracetamol hoping that it will help in my fever but it didn’t so I went to a homoeopathic practitioner who gave me some medicine that really helped.

The same participant also reported previously trying black tea and boiled egg to try to alleviate fever.

Another participant who had diarrhoea along with fever attributed the fever as a symptom of infection (diarrhoea in his case) and started using an antibiotic without consulting with a doctor in order to treat diarrhoea, believing that fever will go once the diarrhoea was cured.

P7: I did not take paracetamol but only ciprofloxacin as I know fever is because of some infection.

Backache was reported by one of the participants as an ongoing problem, which was treated by a home remedy that includes mixing egg with boiling milk and drinking this mixture. This provided relief for some time. The participant indicated that his profession (plumbing) was the reason for the backache and he would have to bear with it the rest of his life. He preferred ayurvedic over conventional medicines to treat his problem.

P4: When I have to take medicine I go for ayurvedic as I do not like Angrezi dawa [translated as ‘English medicine’ and refers to allopathic medicine]. I used the medicine for about one month and I was perfectly alright but when I stopped taking the medicine it started again.

Joshanda (a commercially available herbal mixture; ingredients of a typical example are: Glycyrrhiza glabra, Judicia adhatoda, Hyssopus officinalis, Camellia sinensis, Ephedra sinica, Mentha x piperita, Foeniculum vulgare and Eucalyptus globulus) was reported to be used for treating flu-like symptoms by one of the participants. Another participant who experienced the same symptoms used black tea. One of the participants reported having long-term cold and flu-like symptoms that were affecting her eyesight and causing generalised body pain. She went to see the doctor who suggested an x-ray that she did not go for in order to save money. She further indicated that she was thinking of switching to the homoeopathic mode of treatment which might be less expensive.

The participant who experienced sore throat reported treating it with paracetamol and gargling with saline water.

Diarrhoea was recently experienced by three of the participants. One of them tried to treat his condition by taking metronidazole, ciprofloxacin, and oral rehydration therapy.

P7: It started with pain in my stomach so I took metronidazole. I took three doses and the pain was gone but when I ate okra curry it started again and I got severe diarrhoea with loose motions.
The same participant also tried some home remedies in addition to using conventional medicines.

P7: I took ispaghola husk with yogurt. Also someone told me to roast the cumin seed and eat them. I tried that as well.

Another participant who experienced diarrhoea used a decoction of mint, fennel, and Bishop Weed (*Ajwain* in local language). However one of the participants was brought to the hospital where he was given emergency treatment. He reported that he hardly used any kind of remedy including home remedies when he gets minor symptoms as they get better on their own.

Menstrual pain was reported to be treated by mefenamic acid and a home remedy that included boiling together and drinking certain herbs such as black tea leaves, mint, *glycyrrhiza* (also known as Chinese liquorice), and black cardamom.

### 3.1.2. Factors affecting decision-making on treatment

Some of the factors found to affect participants’ decision-making pertaining to the treatment of minor ailments included past experience, friends’ or relatives’ experience and advice, family practice, presence of a health professional in the family or circle of friends and cultural practice. Involvement of these factors in the treatment-seeking quest is evident from the following quotes:

P1: I used the same nasal drops that the doctor gave me the first time to stop nasal bleeding.

P3: Mostly I go to see the homoeopathic practitioner as he lives nearby and he is kind of a family friend.

P3: My mother often tells me about home remedies.

P3: My aunt always tells us when to take which tablet as her husband owns a medical store.

P4: My father brought me some allopathic medicine for back ache.

P6: My mum as she herself uses this remedy.

P7: [Roast] Cumin [seed] was told by my cousin’s sister and yogurt and Ispaghola, you know it’s very common in our culture.

P10: My aunty told me about it [decoction of mint, fennel and Bishop Weed].

### 3.1.3. Consultation with a doctor

Seeking professional help for minor conditions was not a preferred choice. The majority of the participants stated that they would try to fix the condition on their own first by using traditional remedies and/or over-the-counter (OTC) products but if the condition got worse and persisted for a long period of time or interferes with their normal routine they would consider seeking help from a doctor. The high cost of diagnostic tests, perceived side effects associated with allopathic medicines and dislike of injections were reasons to avoid consulting a doctor.

P5: They asked me to go for an X-ray but I never went as it will cost me a lot.

P4: Allopathic medicines have side effects while homoeopathic medicines do not have any.

P10: Actually the first thing they do is they give infusion and then ask for different tests and give medications of high potency that make your condition even worse. Also I prefer not to take any medicine in injection form so I prefer not to go and see the doctor.

Homoeopathic and ayurvedic systems of treatment were also found to be the preferred choice for some respondents.

P5: Now I am thinking to consult with a homoeopathic practitioner.
P3: Mostly I go to see the homoeopathic practitioner who lives nearby.
P4: When I have to take medicine I go for ayurvedic as I do not like Angrezi dawa [allopathic medicine].

In contrast, one participant claimed that he believed only in the allopathic system of treatment as it is research-based and that homoeopathic practitioners are ill qualified.

P2: Homoeopathic system may work for minor ailments but for serious and complicated conditions allopathic system is better as they have more research, also they have surgery and different diagnostic tests.
P2: I have many friends of mine who completed 10 years of education and got into homoeopathic course and now they are called doctors. So for condition like mine I do not think homoeopathic can work.

3.1.4. **Knowledge and beliefs about symptoms and medication**

Some participants’ beliefs aligned with allopathic medicine.

P2: If a cough persists for more than 3 days and does not respond to OTC products one should consult the doctor.
P7: One should complete the full course of antibiotics.

Table 2. Respiratory symptoms and responses.

| Symptoms        | Possible responses                                                                 |
|-----------------|-------------------------------------------------------------------------------------|
| Hay fever/Allergy | - Drink lukewarm water  
                 | - Take honey and nigella seed oil in lukewarm water  
                 | - Rest  
                 | - Take a combination of pseudoephedrine, paracetamol, and triprolidine |
| Cough           | - Drink honey in lukewarm water  
                 | - Take ginger juice with honey  
                 | - Eat honey and nigella seeds  
                 | - Eat baked guava  
                 | - Eat almond with honey  
                 | - Eat poppy seeds  
                 | - Eat dates  
                 | - For dry cough eat Halwa (traditional dessert cooked in clarified butter)  
                 | - Take cough syrup  
                 | - Eat Munagga (Black Raisin, also Munakka, Monakka; *Vitis vinifera* ‘Black Monukka’)  
                 | - Take mixture of honey and black pepper |
| Sore throat     | - Gargle with decoction of cassia legumes in milk  
                 | - Take ginger juice in honey  
                 | - Gargle with alum water  
                 | - Take glycyrrhiza (liquorice)  
                 | - Take lozenges such as Strepsils®  
                 | - Take herbal black mulberry syrup  
                 | - Drink tea with salt  
                 | - Take erythromycin tablets  
                 | - Take amoxycillin capsules  
                 | - Gargle with saline solution |
| Flu             | - Take homoeopathic medicine  
                 | - Take Joshand (commercially available herbal mixture)  
                 | - Eat roasted chickpeas  
                 | - Eat almonds tossed in a pan  
                 | - Rest  
                 | - Apply Vicks Vaporub® |
However, one of the participants claimed that the ear infection he was having is actually a kind of pimple in his brain that should release the pus; otherwise it may progress into some kind of cancer; one should not get any treatment for this other than pain killers.

3.2. Findings of focus group discussions

Participants highlighted 29 symptoms which they thought people experienced in everyday life.

3.2.1. Respiratory symptoms

Participants highlighted four respiratory symptoms that people might experience in everyday life along with possible responses (Table 2), along with asthma which as a chronic condition is not included in the results. Use of honey, ginger, and gargling with saline water were reported to be the common responses to respiratory symptoms. However participants also reported using antibiotics for sore throat, without consulting with a doctor. Homoeopathic medication and commercially available herbal mixture Joshanda were reported to be used for treating the symptoms of flu.

Table 3. Musculoskeletal symptoms and responses.

| Symptoms                              | Possible responses                                                                 |
|---------------------------------------|-----------------------------------------------------------------------------------|
| Headache                              | Recite *Surah Fateha* (first few verses of The Holy Quran) also known as ‘verses for cure’  
Drink more water                        |
|                                       | Relax in dark room                                                                 |
|                                       | Take mefenamic acid/other pain killers                                            |
|                                       | Get scalp massage with oil                                                        |
|                                       | Take bath                                                                         |
|                                       | Drink tea                                                                         |
|                                       | Rest/sleep                                                                        |
|                                       | Go to doctor if nothing helps                                                     |
| Joint pain (pain in ankles, knees, etc.) | Massage with olive oil                                                     |
|                                       | Drink soup-bones                                                                  |
|                                       | Drink chicken feet soup                                                           |
|                                       | Avoid climbing stairs                                                             |
|                                       | Eat curry made of cow or goat legs                                                |
|                                       | Take mixture of fruit vinegar, garlic, and honey in the morning                   |
| Menstrual pain                         | Drink warm milk                                                                  |
|                                       | Use hot water bottle on affected area                                             |
|                                       | Drink green tea or mint tea                                                       |
|                                       | Eat dates                                                                         |
|                                       | Rest                                                                              |
|                                       | Take raw egg in warm milk                                                         |
|                                       | Take hyoscine butylbromide tablet or injection                                   |
| Swelling of toes in winter            | Use stockings                                                                     |
|                                       | Dip feet in warm water                                                            |
|                                       | Take vitamin C                                                                    |
| Back pain                             | Pressing                                                                         |
|                                       | Take paracetamol/pain killers                                                     |
|                                       | Go for walk                                                                       |
|                                       | Rest                                                                             |
|                                       | Get massage                                                                       |
3.2.2. **Musculoskeletal symptoms**

A total of five musculoskeletal symptoms were highlighted by the participants (Table 3). Arthritis and osteoporosis were reported by the participants but are not described here due to their chronic nature. Pain killers and massage were found to be the most common responses to such symptoms. Spiritual healing that included the recitation of few initial Quranic verses was reported as a response to headache.

3.2.3. **Gastrointestinal symptoms**

Two possible gastrointestinal symptoms were reported by the participants (Table 4). Some of the responses to gastric symptoms included use of certain juices such as that of onion, pumpkin, and lemon, use of carbonated drinks, consuming light soft food such as yogurt, and taking ispaghola husk. Participants also reported using antimicrobials such as metronidazole in order to treat diarrhoea.

3.2.4. **Dermatological symptoms**

Eight common dermatological symptoms were highlighted during the discussions (Table 5). Use of certain oils, creams, lotions, and shampoos were found to be the most common responses to such symptoms. Some other possible responses included waxing for female facial hair, using prickly heat powder for prickly heat, applying aloe vera pulp for rashes and using anti-dandruff shampoo for hair dandruff. Honey was reported not only to be used in certain respiratory symptoms but also in attempts to stop hair loss.
3.2.5. Mental/psychological symptoms

Three mental/psychological symptoms were also highlighted by the participants which were anxiety/depression, lack of focus, and phobia. Spiritual healing, such as reciting Quranic verses and offering prayers, was found to be the most common response to these symptoms. Other responses to treat anxiety/depression included getting more sleep, talking with friends,

Table 5. Dermatological symptoms and responses.

| Symptoms                        | Possible responses                                                                 |
|---------------------------------|------------------------------------------------------------------------------------|
| Female facial hair              | Apply *ubtan* (A herbal mixture containing turmeric and some other herbs)          |
|                                 | Waxing                                                                            |
|                                 | Apply lemon juice                                                                  |
|                                 | Honey massage                                                                     |
|                                 | Apply the unripe fruit of the *Jand* tree (*Prosopis cineraria*)                    |
| Prickly heat                    | Apply mustard oil                                                                  |
|                                 | Take regular bath                                                                  |
|                                 | Take care of hygiene                                                               |
|                                 | Apply prickly heat powders and creams                                              |
|                                 | Apply cold cream                                                                   |
| Rashes                          | Take bath                                                                          |
|                                 | Apply mustard oil                                                                  |
|                                 | Apply corn flour                                                                   |
|                                 | Apply creams/lotions/ointments                                                     |
|                                 | Wash with alum water                                                               |
|                                 | Wash with Dettol®                                                                  |
|                                 | Apply aloe vera pulp                                                               |
| Hair dandruff                   | Use herbal shampoos                                                               |
|                                 | Apply mixture of ginger juice and mustard oil                                      |
|                                 | Apply mixture of yogurt, mustard oil, *egg*, and lemon juice                       |
|                                 | Massage with oil                                                                   |
|                                 | Take antifungal tablets                                                            |
|                                 | Use anti-dandruff shampoos                                                         |
| Hair fall/hair loss             | Apply mixture of honey and cinnamon powder                                        |
|                                 | Apply beet root extract                                                            |
|                                 | *Apply egg*                                                                         |
|                                 | *Apply Aritha* (soapnut, *Sapindus mukorossi*) powder                              |
|                                 | Apply medicated oil                                                                |
|                                 | Use medicated shampoo                                                             |
|                                 | *Apply aloe vera*                                                                  |
| Grey hair in young age          | Avoid removing grey hair otherwise more hair will turn grey                        |
|                                 | Drink filtered water                                                               |
|                                 | Massage with oil                                                                   |
|                                 | Could be because of long-term cold and flu so these conditions should be treated   |
|                                 | properly                                                                           |
|                                 | Massage with coconut and nigella (Black cumin, *Nigella sativa*) seed oil          |
| Chicken pox                     | Recite Quranic verses                                                              |
|                                 | Smoke of burnt seeds of Wild Rue plant                                            |
|                                 | Avoid oily food                                                                    |
|                                 | *Eat Munaqqa* (Black Raisin, also Munakka, Monakka; *Vitis vinifera* ‘Black Monukka’) |
| Scabies                         | Apply benzyl benzoate emulsion                                                     |
|                                 | Smoke of a resin (styrax benzoin) burnt on burning coal                              |

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listening to music, and taking sleeping pills. Lack of focus was reported to be a symptom that might be caused by some social problem and would be relieved once the problem is solved. The only response to phobia as reported by the participants was offering prayers.

3.2.6. Miscellaneous symptoms

Some of the miscellaneous symptoms included eye infection, fever, jaundice, evil eye (a look that is believed by many cultures to be able to cause injury or bad luck for the person at whom it is directed for reasons of envy or dislike), and wax/dryness in ear (Table 6). Some other chronic conditions were excluded, such as hypertension, hypercholesterolemia, and diabetes.

### Table 6. Miscellaneous symptoms and responses.

| Symptoms                        | Possible responses                                      |
|---------------------------------|--------------------------------------------------------|
| Eye infection                   | Use eye drops                                           |
|                                 | Use rose water                                          |
|                                 | Rinse eyes with cold water                              |
|                                 | Use boric acid eyewash                                  |
| Fever                           | Apply cold bandages for high fever                       |
|                                 | Eat soft food                                           |
|                                 | Drink black tea with lemon and sleep in warm to get sweating and the fever will go off |
|                                 | Take paracetamol                                         |
|                                 | Rest                                                    |
|                                 | See the doctor                                          |
| Jaundice                        | Drink radish juice                                      |
|                                 | Recite certain verses of The Holy Quran                |
|                                 | Drink sugarcane juice                                   |
| Evil eye                        | Recite Quranic verses                                    |
| Ear wax/dryness in ear          | Use mustard oil                                         |

4. Discussion

Participants reported a variety of responses to combat minor illnesses. These responses included getting more rest, spiritual healing, trying home remedies, using homoeopathic and herbal medicines, and using allopathic medicines (sometimes without consulting a physician).

‘Home-based treatment’ also termed ‘self-care’ was a commonly reported response to a wide range of symptoms, although it is one of the least studied forms of health seeking behaviour (Bledsoe & Goubaud, 1985; Kroeger, 1983; Risse, 1977; Ritchie, Herscovitch, & Norfor, 1994; Silverman, Lee, & Lydecker, 1982). The World Health Organization (2009) defines self-care as ‘the ability of individuals, families and communities to promote health, prevent disease, and maintain health and to cope with illness and disability with or without the support of a health-care provider’. One of the integral parts of ‘self-care’ is ‘self-medication’ which is defined as ‘the selection and use of medicines (including herbal and traditional remedies) by individuals to treat self-recognized illnesses or symptoms’ (World Health Organization, 1998). The participants of this study reported the use of all forms of medications as a part of a self-care process. Consistent with the findings of other studies conducted on specific conditions in different geographical areas of Pakistan this study suggests that self-medication is the most common initial response to any illness (Chandio et al., 2000; Haider & Thaver, 1995; Hassan, 1981; Hunte &
Sultana, 1992; Sadiq & Muynck, 2001; Shaikh, Haran, & Hatcher, 2008). People use both homemade and commercially prepared remedies, which are mostly herbal in nature.

Self-medication is a common practice both in industrialised as well as developing countries but is hardly equivalent qualitatively or quantitatively (Van der Geest & Hardon, 1990). In industrialised countries it is less of a necessity and is mostly guided by information gained by books, magazines, package inserts, and other media, and drug legislation and enforcement means that access to many medicines is restricted by prescription. In developing countries like Pakistan, however, self-medication is more necessary due to poverty and lack of access to formal healthcare (Van der Geest & Hardon, 1990). Consumers from developing countries mostly rely on advice from family and friends, overprescribing physicians, unqualified drug sellers, and the marketing campaigns of the pharmaceutical companies (Kunin, 1985; Tan, 1988; Yusuff & Wasi Sanni, 2011). The current study also found that family and friends were important influences on responses to illness.

The majority of the home remedies in this study were herbal and traditional in nature. This is consistent with the findings of other studies conducted in developing countries such as Ghana, Mali, Nigeria, and Zambia (Hasan, Ahmed, Bukhari, & Loon, 2009). The use of traditional medicines outside their traditional culture (especially in developed countries) can be termed Complementary and Alternative Medicine (CAM) (World Health Organisation, 2000a). In this sense, the high level of traditional medicine use is not dissimilar to some developed countries. For example, about 46% of respondents in the UK are expected to use one or more CAM therapies in their lifetime (Thomas, Nicholl, & Coleman, 2001) with a similar level in South Australia (MacLennan, Myers, & Taylor, 2006). In developing countries like Pakistan, in addition to using home-based and commercially available traditional medicines people consult with traditional healers also known as Hakeem, homeopaths, spiritual and faith healers, bonesetters, and traditional birth attendants (Dais). This informal sector accounts for more than 70% of the consultations in the country (Karim & Mahmood, 1999). In this medical pluralism where formal and informal sectors operate hand in hand, ‘healer shopping’ can be a common practice. As is evident from the findings of other studies people tend to change healers quickly because they want quick results (Hunte & Sultana, 1992; Kundi, Anjum, Mull, & Mull, 1993). However the findings of this study suggest that using all kinds of remedies without any consultation is the first immediate response to almost all the minor illnesses reported.

Antibiotics were used without medical advice for certain medical conditions. These are most likely sourced from drug retail-shops, commonly known as medical stores, which are often the public’s first point of contact with the healthcare system (Kaffle et al., 1996). In Pakistan all drugs are sold as over-the-counter products that do not require any prescription (Arshad, Ijaz, & Hussain, 2007–2010). Rao and Soomro (2004) explored the role of pharmacy in health-seeking behaviour in Karachi. Reasons for going to the pharmacy included it being a common practice in society, the higher cost of other treatments, extra cost of doctors, long waiting times, doctors not being available 24 hours a day, doctors’ knowledge not being up to standard, confidence in their own knowledge of medicine, and pharmacists being more up-to-date sources of knowledge about drugs. The last reason is questionable as only a few reputable pharmacy chain stores have qualified pharmacists at the front desk; the majority of pharmacies are operated by non-qualified lay persons who get their knowledge of drugs from experience of running their own business or working in some other retail pharmacy prior to starting their own business.

Similar to Shaikh and Hatcher (2005), the type and duration of symptoms experienced for the illness are major determinants of health-seeking behaviour and choice of care provider. In case of a mild single symptom such as fever, home remedies or folk prescriptions are used, whereas with multiple symptoms and a longer period of illness, an allopathic health provider is more likely to be consulted (Islam & Malik, 2001; Sadiq & Muynck, 2001). Social networks including family and
friends were also found to be significantly shaping people’s responses to symptoms. Advice of the
erlder women in the house is also instrumental and cannot be ignored (Delgado, Sorensen, & Van
der Stuyft, 1994). Household economics also limit the choice and opportunity for health seeking
(Hunte & Sultana, 1992; World Bank, 2002). In countries like Pakistan where 70% of health
expenditure is out-of-pocket payments, poverty excludes people from benefits of the healthcare
system (Shaikh & Hatcher, 2005; World Health Organisation, 2000b).

Being an Islamic state, religion has an integral part in people’s everyday life. This is evident
from the finding that use of certain Quranic verses is a common practice to alleviate certain sick-
nesses. However, unlike the findings of some other studies in rural areas of Pakistan where illness
was often related to evil eye and spirit possession (Hunte & Sultana, 1992; Mull & Mull, 1988;
Shaikh et al., 2008), the respondents of this study did not report the same, though they did
mention evil eye as a condition in and of itself, which may be treated by reciting certain
Quranic verses. The disparity between the findings might be due to the variation in educational
background of the participants. The aforementioned studies were conducted in remote areas of
Pakistan with low literacy rates whereas the participants of the current study were moderately edu-
cated. Higher education might have influenced their understanding and awareness. However, it
was not clear whether the spiritual healing is preferred over conventional treatment or if they
are used together. According to Muslim belief there are various verses of the Quran which are
helpful in treating different conditions especially the first few verses of the Quran which are
regarded as ‘Verses of cure’. Islam also encourages people to use conventional treatments,
although one should have a belief that whichever mode of treatment is used (Quranic verses or
conventional treatment) the ultimate cure is given by Allah (God).

Focus group discussions are a qualitative research method that has become increasingly
popular in healthcare and medical research due to the fact that most health-related conditions
are created by social environments and made within the social context (Carter & Henderson,
2005). Focus groups, unlike individual interviews, provide the added dimension of the inter-
actions among members (Wong, 2008). Thus, focus groups are a popular method for assessing
public experience and understanding of illness (Kitzinger, 1993; Ritchie et al., 1994). As the
aim of the study was to explore possible everyday life symptoms that people might experience
and possible responses to these symptoms, focus groups were the most suitable method to
gather the data of interest. However, domination by one or two group members, shyness at
describing sensitive topics, and possible inconsistency between what people say and what actu-
ally they do are some of the limitations of focus groups. These limitations were countered with the
addition of in-depth interviews.

Self-care offers unique opportunities for health promotion, disease prevention, and for staying
healthy. To revitalise self-care effectively, beneficial lay/traditional self-care practices can be inte-
grated into alternative community-based self-care interventions (World Health Organization,
2009). A project in Nepal based on these concepts has shown promising results (Haider &
Thaver, 1995; Kaife & Gartoulla, 1993). Mass-level health awareness programmes coupled
with integration of the traditional and informal sector into the mainstream and development,
implementation, and enforcement of laws about prescription only medicine status may attenuate
the problems associated with self-medication and improve the overall quality of healthcare.

5. Conclusions
Home-based treatments, including self-care, self-medication, use of CAM and spiritual healing,
were found to be the first line of action for alleviating minor illnesses in Pakistan. Family and
social connections were key influences, especially for the use of traditional remedies.
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References
Anwar, M., Green, J., & Norris, P. (2012). Health-seeking behaviour in Pakistan: A narrative review of the existing literature. Public Health, 126, 507–517. doi:10.1016/j.puhe.2012.02.006
Arshad, M. S., Ijaz, M. F. R. M., & Hussain, A. (2007–2010). Evaluation of antibiotic use behavior in cold and flu amongst the students of Bahauddin Zakariya University Multan Pakistan. Pakistan Journal of Pharmacy, 20–23, 15–22.
Berkanovic, E., & Telesky, C. (1982). Social networks, beliefs, and the decision to seek medical care: An analysis of congruent and incongruent patterns. Medical Care, 20, 1018–1026.
Bledsoe, C. H., & Goubaud, M. F. (1985). The reinterpretation of Western pharmaceuticals among the Mende of Sierra Leone. Social Science and Medicine, 21, 275–282.
Carter, S., & Henderson, L. (2005). Approaches to qualitative data collection in social science. In S. Ebrahim & A. Bowling (Eds.), Handbook of health research methods: Investigation, measurement and analysis (pp. 215–230). Maidenhead: McGraw-Hill.
Chandio, A. M., Sandelo, P., Rahu, A. A., Ahmed, S. T., Dahri, A. H., & Bhatti, R. (2000). Snake bite: Treatment seeking behaviour among Sind rural population. Journal of Ayub Medical College, 12, 3–5.
Delgado, E., Sorensen, S. C., & Van der Stuyft, P. (1994). Health seeking behaviour and self-treatment for common childhood symptoms in rural Guatemala. Annales de la Societe Belge de Medecine Tropicale, 74, 161–168.
Egan, K. J., & Beaton, R. (1987). Response to symptoms in healthy, low utilizers of the health-care system. Journal of Psychosomatic Research, 31, 11–21.
Ford, C. V. (1983). The somatizing disorders: Illness as a way of life. New York, NY: Elsevier Biomedical.
Haider, S., & Thaver, I. H. (1995). Self medication or self care: Implication for primary health care strategies. The Journal of the Pakistan Medical Association, 45, 297–298.
Hakim, K. F. (1997). Role of health systems research in policy, planning, management and decision-making, with reference to Pakistan. Eastern Mediterranean Health Journal, 3, 556–566.
Hasan, S. S., Ahmed, S. I., Bukhari, N. I., & Loon, W. C. W. (2009). Use of complementary and alternative medicine among patients with chronic diseases at outpatient clinics. Complementary Therapies in Clinical Practice, 15, 152–157.
Hassan, N. W. (1981). Medical knowledge and attitude of patients–A survey. Journal of the Pakistan Medical Association, 31, 146–148.
Hunte, P. A., & Sultana, F. (1992). Health-seeking behavior and the meaning of medications in Balochistan, Pakistan. Social Science and Medicine, 34, 1385–1397.
ICDDR, B. (2008). Health seeking behaviour in chakaria. Baltimore, MD: Future Health Systems. Retrieved from Research Briefs: http://www.futurehealthsystems.org/storage/Bangladeshinformalproviderbrief1.pdf
Islam, A., & Malik, F. A. (2001). Role of traditional birth attendants in improving reproductive health: Lessons from the family health project, Sindh. Journal of the Pakistan Medical Association, 51, 218–222.
Kafle, K. K., & Gartoulla, R. P. (1993). Self-medication and its impact on essential drugs schemes in Nepal: A socio-cultural research project. Geneva: Action Programme on Essential Drugs World Health Organization. Retrieved from http://apps.who.int/iris/handle/10665/61926

Kafle, K. K., Madden, J. M., Shrestha, A. D., Karkee, S. B., Das, P. L., Pradhan, Y. M. S., & Quick, J. D. (1996). Can licensed drug sellers contribute to safe motherhood? A survey of the treatment of pregnancy-related anaemia in Nepal. Social Science and Medicine, 42, 1577–1588.

Karim, M., & Mahmood, M. (1999). Health systems in Pakistan: A descriptive analysis. Karachi: Department of Community Health Sciences, Aga Khan University.

Kroeger, A. (1983). Anthropological and socio-medical health care research in developing countries. Social Science & Medicine, 17, 147–161.

Kundi, M. Z. M., Anjum, M., Mull, D. S., & Mull, J. D. (1993). Maternal perceptions of pneumonia and pneumonia signs in Pakistani children. Social Science and Medicine, 37, 649–660.

Kunin, C. M. (1985). The responsibility of the infectious disease community for the optimal use of antimicrobial agents. Journal of Infectious Diseases, 151, 388–398.

Leyva-Flores, R., Luz Kageyama, M., & Erviti-Erice, J. (2001). How people respond to illness in Mexico: Self-care or medical care? Health Policy, 57, 15–26.

MacLennan, A. H., Myers, S. P., & Taylor, A. W. (2006). The continuing use of complementary and alternative medicine in South Australia: Costs and beliefs in 2004. Medical Journal of Australia 184, 27–31.

Mechanic, D. (1962). The concept of illness behavior. Journal of Chronic Diseases, 15, 189–194.

Mechanic, D., Cleary, P. D., & Greenley, J. R. (1982). Distress syndromes, illness behavior, access to care and medical utilization in a defined population. Medical Care, 20, 361–372.

Mull, J. D., & Mull, D. S. (1988). Mothers’ concepts of childhood diarrhea in rural Pakistan: What ORT program planners should know. Social Science and Medicine, 27, 53–67.

Ngokwey, N. (1995). Home remedies and doctors’ remedies in Feira (Brazil). Social Science & Medicine, 40, 1141–1153.

Porteous, T., Ryan, M., Bond, C. M., & Hannonford, P. (2006). Preferences for selfcare or professional advice for minor illness: A discrete choice experiment. British Journal of General Practice, 56, 911–917.

Rao, M. H., & Soomro, I. B. M. (2004). Attitude and practice pattern of urban population in the use of local pharmacy in treatment seeking process and its comparison with the semi urban population of Karachi. Pakistan Journal of Medical Research, 43, 1–9.

Reeve, M. E. (2000). Concepts of illness and treatment practice in a caboclo community of the Lower Amazon. Medical Anthropology Quarterly, 14, 96–108.

Risse, G. B. (1977). Introduction. In G. B. Risse, R. L. Numbers, & J. W. Leavitt (Eds.), Medicine without doctors: Home health care in American history (pp. 1–10). New York, NY: Science History Publications.

Ritchie, J. E., Herscovitch, F., & Norfor, J. B. (1994). Beliefs of blue collar workers regarding coronary risk behaviours. Health Education Research, 9, 95–103.

Sadiq, H., & Muynck, A. D. (2001). Health care seeking behavior of pulmonary tuberculosis patients visiting TB Center Rawalpindi. Journal of the Pakistan Medical Association, 51, 10–16.

Shaikh, B. T., Haran, D., & Hatcher, J. (2008). Where do they go, whom do they consult, and why? Health-seeking behaviors in the northern areas of Pakistan. Qualitative Health Research, 18, 747–755.

Shaikh, B. T., & Hatcher, J. (2005). Health seeking behaviour and health service utilization in Pakistan: Challenging the policy makers. Journal of Public Health, 27, 49–54.

Silverman, M., Lee, P. R., & Lydecker, M. (1982). Prescriptions for death: The drugging of the third world. Berkeley, CA: University of California Press.

Tan, M. L. (1988). Dying for drugs: Pill power and politics in the Philippines. Quezon City: Health Action Information Network.

Tanner, J. L., Cockerham, W. C., & Spaeath, J. L. (1983). Predicting physician utilization. Medical Care, 21, 360–369.

Thomas, K. J., Nicholl, J. P., & Coleman, P. (2001). Use and expenditure on complementary medicine in England: A population based survey. Complementary Therapies in Medicine, 9, 2–11.

Van der Geest, S., & Hardon, A. (1990). Self-medication in developing countries. Journal of Social and Administrative Pharmacy, 7, 199–204.

Wong, L. P. (2008). Focus group discussion: A tool for health and medical research. Singapore Medical Journal, 49, 256–261.
World Bank. (2002). *Pakistan - Poverty assessment: Poverty in Pakistan - vulnerabilities, social caps, and rural dynamics*. Washington, DC: World Bank. Retrieved from http://documents.worldbank.org/curated/en/2002/10/2050407/pakistan-poverty-assessment-poverty-pakistan-vulnerabilities-social-caps-rural-dynamics

World Health Organization. (1998). *The role of the pharmacist in self-care and self-medication*. Geneva: World Health Organisation. Retrieved from http://apps.who.int/medicinedocs/pdf/whozip32e/whozip32e.pdf

World Health Organization. (2000a). *General guidelines for methodologies on research and evaluation of traditional medicines*. Geneva: World Health Organisation. Retrieved from http://apps.who.int/medicinedocs/pdf/whozip42e/whozip42e.pdf

World Health Organization. (2000b). *World health report 2000 – Health Systems: Improving performance*. Geneva: World Health Organisation. Retrieved from http://www.who.int/whr/2000/en/

World Health Organization. (2009). *Self-care in the context of primary health care: Report of the regional consultation, Bangkok, Thailand*. New Delhi: World Health Organization–Regional Office for South East Asia. Retrieved from http://apps.searo.who.int/PDS_DOCS/B4301.pdf

Yusuff, K. B., & Wassi Sanni, A. (2011). Itinerant vending of medicines inside buses in Nigeria: Vending strategies, dominant themes and medicine-related information provided. *Pharmacy Practice, 9*, 128–135.