Social Science & Medicine 211 (2018) 102–113

Contents lists available at ScienceDirect

Social Science & Medicine

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

Social capital, outpatient care utilization and choice between different levels of health facilities in rural and urban areas of Bhutan

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ARTICLE INFO

Keywords:
Bhutan
Healthcare utilization
Health facility level
Individual social capital
Cognitive social capital
Structural social capital
Output measure of social capital
Rural and urban areas

ABSTRACT

This study examines the factors that explain outpatient care utilization and the choice between different levels of health facilities in Bhutan, focusing on individual social capital, given Bhutan's geography of remote and sparsely populated areas. The more isolated the living, the more important individual social capital may become. Standard factors proposed by the Andersen model of healthcare utilization serve as control variables. Data for 2526 households from the 2012 Bhutan Living Standards Survey, which contains a social capital module covering structural, cognitive and output dimensions of social capital, are used. The results from the logistic regression analysis show that individual social capital is positively related with the probability of seeking treatment when ill or injured. Informal social contacts and perceived help and support are most important in rural areas, whereas specific trust matters in urban areas. The explanatory power of the model using a subset of the data for urban areas only, however, is very low as most predisposing and enabling factors are insignificant, which is not surprising though in view of better access to health facilities in urban areas and the fact that healthcare is provided free of charge in Bhutan. Multinomial regression results further show that structural and output dimensions of social capital influence the likelihood of seeking care at secondary or tertiary care facilities relative to primary care facilities. Moreover, economic status and place of residence are significantly associated with healthcare utilization and choice of health facility. The findings with respect to social capital suggest that strategizing and organizing social capital may help improve healthcare utilization in Bhutan.

1. Introduction

While the determinants of healthcare utilization have been examined in numerous studies, the importance of social capital for healthcare utilization has only been considered in the more recent literature. Nonetheless, these studies have shown consistently that social capital matters and that the various components of collective and individual social capital affect healthcare utilization differently (Deri, 2005; Devillanova, 2008; Laporte et al., 2008; Nauenberg et al., 2011; Story, 2014). None of the studies reviewed analysed the choice between different levels of health facilities, perhaps due to the existence of gatekeeping schemes with obligatory referral in several countries. While collective social capital refers to levels of social activity in a group, individual social capital reflects an individual's own social participation, social support and level of psychosocial trust (Costa-Font and Mladovsky, 2008). Most studies that look at social capital focus on its relationship with health (Veenstra et al., 2005; Islam et al., 2006; Kim and Kawachi, 2006; Poortinga, 2006; Yip et al., 2007; Petrou and Kupek, 2008; Ferlander and Mäkinen, 2009; d'Hombres et al., 2010; Kim et al., 2011; De Clercq et al., 2012; Rocco and Suhrcke, 2012), rather than healthcare utilization per se. One way in which individual social capital may influence healthcare utilization is through social networks that ensure that an individual receives needed healthcare by providing certain services such as, for example, transportation services, which are particularly important in remote areas (Costa-Font and Mladovsky, 2008; Laporte et al., 2008; Nauenberg et al., 2011).

Bhutan is a small country in the Eastern Himalayas, with remote areas and a rugged and mountainous topography. The healthcare system is predominantly publicly funded and public health services are provided free of charge. The absence of a gatekeeping system de facto gives patients a choice between different levels of health facilities (primary, secondary and tertiary healthcare facilities). In 2014, the share of household out-of-pocket payments stood at 25% of total health expenditures. Patient transportation accounted for about 50% of household out-of-pocket payments (Thinley et al., 2017). In a recent study, Damrongplasit and Wangdi (2017) empirically analysed the factors that explain the decision to use outpatient care when ill, outpatient utilization choice and bypassing decision and found that

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https://doi.org/10.1016/j.socscimed.2018.06.010
Received 10 December 2017; Received in revised form 15 June 2018; Accepted 15 June 2018
Available online 18 June 2018
0277-9536/

Table 1
Key district health and other indicators.
Data sources: Ministry of Health, RGoB (2015); National Statistics Bureau, Bhutan.

District	Hospital (incl. indigenous hospital, 2014)	BHU (incl. satellite clinics and sub-posts, 2014)	ORC (2014)	Population density (2005)	Poverty rate (2012)	Crude death rate per 1000 population (2012)
Bumthang	1	5	12	6	3.4	11.9
Chhukha	3	15	44	45	11.2	12.3
Dagana	1	9	32	9	25.1	4.3
Gasa	0	4	6	3	0.5	28.2
Haa	1	4	17	7	6.4	3.9
Lhuentse	1	14	32	6	31.9	17.5
Monggar	1	28	53	22	10.5	12.3
Paro	1	3	22	31	0.5	8
Pemagatshel	1	19	39	25	26.9	1.8
Punakha	1	8	11	23	10	18.9
Samdrup Jongkhar	2	10	32	20	21	2.7
Samtse	2	14	49	50	22.2	7.7
Sarpang	2	13	13	21	4.2	1.7
Thimphu	5	13	18	68	0.5	4.8
Trashigang	3	23	56	17	11.5	18
Trashiyangtse	1	10	23	13	13.5	8.9
Trongsa	1	9	21	8	14.9	7.1
Tsirang	1	7	19	32	14.8	4
Wangdue Phodrang	2	11	29	8	10.9	7.3
Zhemgang	1	15	34	9	26.3	7.6
Bhutan	31	234	562	18	12	8.5

geographical factors are important. However, the authors did not consider the influence of social capital. Tenzin and Natsuda (2016) on the other hand, examined the relationship of social capital and individual household income and community development in rural areas of Bhutan, but not healthcare utilization or health.

This study examines the factors that explain outpatient healthcare utilization in Bhutan, focusing on individual social capital, given Bhutan's geography of remote and sparsely populated areas. The more isolated the living, the more important social capital may become. This study is important as gaps in healthcare accessibility and the utilization of health services exist despite the fact that public health services are free of charge in Bhutan (Sharma et al., 2014; Jamtsho et al., 2015). In addition, this study contributes to the scant literature on the relationship between social capital and healthcare utilization in a developing country context by not only looking at the decision to seek care when ill, but also the influence of social capital on the choice between different levels of health facilities.

2. Country context

With a land area of 38,394 square kilometres and a population of 774,830 in 2015 (World Bank), Bhutan is a small landlocked country in the Eastern Himalayas. Administratively, Bhutan is divided into 20 Dzongkhags (districts), 15 Dungkhags (sub-districts) and 205 Gewogs (blocks) (RGoB). The geographical terrain is remote and difficult, but varies across the Western, Eastern, Central and Southern zones. In 2015, GNI per capita (Atlas method, current USD) stood at 2380 USD and Bhutan was classified as a lower middle-income country (World Bank).

Article 9, Sections 21 and 22 of the Constitution specifically state that "*the State shall provide free access to basic public health services in both modern and traditional medicines*" and "*the state shall endeavor to provide security in the event of sickness and disability or lack of adequate means of livelihood for reasons beyond one's control*" (RGoB, 2011). In fact, most health services are provided free of charge at the point of use by the government and there are only a few private diagnostic centres and private retail pharmacies (Sharma et al., 2014, RGoB). Since the 1960s, when the development of the modern healthcare system advanced, the Royal Government of Bhutan (RGoB) has been the most important source of funding. In 2014, total health expenditure stood at 3.6% of GDP and about 73% of total health expenditure was funded by the RGoB. Private health expenditure, of which 94% were out-of-pocket expenditures, accounted for 27% of total health expenditures and exhibited large variations across districts and socioeconomic gradients (Sharma et al., 2014; Thinley et al., 2017). However, about half of out-of-pocket expenditures were due to transportation costs, and out-of-pocket expenditure without transportation cost was estimated to be 12% of total health expenditures (Thinley et al., 2017). Transportation costs mainly arise due to the country's difficult mountain terrain and self-referrals to higher levels of care. Besides, out-of-pocket expenditures are for non-essential services and medicines, as well as essential medicines in case of stock-outs at public health facilities and after-hour clinic consultation fees at the national referral hospital (Damrongplasit and Wangdi, 2017; Thinley et al., 2017). Sustaining free healthcare services has increasingly become challenging due to the epidemiological and demographic transition, evolving healthcare needs and changing expectations, as well as efforts to move closer to achieving universal health coverage.

Given Bhutan's rugged and mountainous topography, healthcare delivery has been difficult. Rural settlements are scattered and range from isolated dwellings to villages with contiguous or dispersed dwellings. In 1961, when the rural population accounted for about 95% of the total population (World Bank), the country had only two hospitals and 11 dispensaries (Ministry of Health RGoB, 2016, World Bank). The rural population stood at 61% of total population in 2015 (World Bank). Nowadays, healthcare services are mainly delivered through a three tiered system with a referral system, ascending from outreach clinics (ORC), sub-posts and basic health units (BHU) at the primary level, district hospitals at the secondary level to regional referral hospitals (one of which serves as the national referral hospital) at the tertiary level. As shown in Table 1, in 2014, there were 31 hospitals (including one indigenous hospital in the capital Thimphu), 234 BHU (including satellite clinics and sub-posts) and 562 ORC (Ministry of Health RGoB, 2016). In the absence of a gatekeeping mechanism, self-referrals are common. If specialist healthcare services cannot be provided in Bhutan, patients are referred outside of the country to hospitals in, for example, India, with the expenses covered by the RGoB. The 350-bed national referral hospital is located in Thimphu, while the other two regional hospitals are located in the Eastern and Central zones of Bhutan. Most district hospitals can be found in and around the major district town, while the BHU and ORC are mostly distributed across Gewogs.