Original Article

Factors Influencing Low Enrollment in a Community Based Health Insurance Scheme, Karachi, Pakistan: a Mixed Methods Case Study

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Abstract

Background: There is strong evidence on the potential of the Community Based Health Insurance (CBHI) schemes to facilitate access to healthcare and offer financial protection against the cost of illness for people excluded from formal insurance systems. However, enrollment in the Family Health Insurance scheme has remained low and there has been substantial drop-out from the initial enrollment of the scheme's insured members. ***Aim:***This research aimed at exploring factors influencing enrollment of community members in a CBHI scheme. ***Methods:***A mixed methods case studycomprisingqualitative phase of 10 Key Informant Interviews and 18 In-depth Interviews, and quantitative phase of 190 households: 96 insured and 94 uninsured were involved. Qualitative analysis was done using open coding while descriptive analysis was done for quantitative data. ***Results:***Lack of awareness regarding insurance, lack of trust in management, unaffordability of insurance premiums, limited coverage of services in insurance plans, ambiguity regarding pre-existing conditions, negative marketing by drop-outs, and exclusion of vulnerable groups were some of the common reasons among uninsured group. Insured members of the scheme also had little knowledge about the scheme. ***Conclusions:***The major reason for enrollment was the influence of community leader's guidance. Stakeholders believed in modification of marketing strategies and innovations in increasing community awareness.

Keywords: Community Based Health Insurance; Out of Pocket expenditure; Healthcare Financing; Safety Nets; Pakistan

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Background

Out-of pocket payments (OOPs) have the highest share in health care spending in developing countries [1-6]. All South Asian countries have even higher out of pocket expenditure than most of the other developing countries raninging from 83 to 96.6%[7]. World Health Organization (WHO) has been a proponent of Universal Health Coverage (UHC) to counter this inequitable health financing. One of the solutions is to achieve UHC through community based prepayment mechanisms [8-11]. Evidence suggests that national health insurance and government subsidies have proven to be less effective strategies in developing countries [10]. Hence, community based

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voluntary health insurance can play an important role in achieving UHC in developing world. International development agencies have appreciated the role of Micro Health Insurance as an effective intervention to provide financial protection to poor[6]. And, Community Based Health Insurance (CBHI) is one of the micro health insurance strategies.

CBHI is a widespread term used for voluntary health insurance schemes, planned and managed at the community level, that are named differently [12]. CBHI embraces an extensive range of health insurance provisions with innovations with respect to governance, administration, enrollment, and services in addition to financial protection in contextually unique settings and intended to safeguard diverse groups of people [9, 13, 14]. Theoretically, there are five key features that all CBHI schemes share: Firstly, these are based on common social dynamics. All individuals in a community can be enrolled if they share similar characteristics i.e., gender, geographical location, common occupation, ethnicity, religion, socio-economic status etc.[9, 13, 15]. Secondly, risk sharing is inclusive in the community. All members of the community are included regardless of their individual health risks [9]. Thirdly, there is a co-operative management and shared decision making process [16]. Fourthly, a distinct feature of most CBHI schemes is that they are non-profit [9, 13, 16-18]. The premiums are set on the basis of community's pooled risks plus overhead charges. Lastly, voluntary membership is a vital feature that separates it from other insurance schemes [13, 17, 18].

Analysing the role and significance of CBHI in health financing mechanism, it is evident that it cannot be successful without implying a systemic approach [16]. In extension to financing, it is about strenghtening health system and increasing the demand side by empowering communities to access health services [19]. Moreover, it is necessary to realize the fact that demand side and supply side must advance hand in hand[14]. The execution of successful CBHI as a result requires a strategic approach. In the same way, constant supervision of CBHI progress can only be fruitful when we apply multi-disciplinary viewpoint. Realization and awareness of CBHI's potential benefits would facilitate policymakers not to merely consider CBHI as a financing system, but also an economical as well as social development[20].

There is a dearth of evidence on CBHI in Pakistan and factors related to its success. This study has been the first study to our knowledge, exploring the factors influencing enrollment of community members in a CBHI. The Family Health Insurance (FHI) schemewhich was evaluated in this study, aimed to enhance enrollment of informal sector in community health insurance program to lessen the financial burden at the time of illness of family members. Since existence, this CBHI scheme was not evaluated to investigate why members of the community do or do not enroll. Therefore, the aim of this study is to explore factors that enabled or resisted enrollment of community members in FHI. Moreover, to explore factors that compelled the enrolled people to dropout.

Methods

A holistic-single case study design was used[21]. The case in this research is a CBHI scheme offered to a particular ethnic community of Muslims on household basis to all the community members who wish to voluntarily participate. The boundaries of case study were the community (relevant ethnic group), enrollment in CBHI scheme (the phenomenon) and geographic location (Karachi). Unit of analysis was households who have enrolled, never enrolled or dropped out of FHI scheme.

This study was conducted over a two months period including qualitative and quantitative phase. For quantitative as well as qualitative arm, non-probability purposive sampling was done. After seeking permissions from community key stakeholders, telephone numbers for insured and drop-out cases were extracted. Verbal consent was taken to meet those clients. Written consent was explained to the participants who agreed to meet. Through purposive sampling, 100 insured members of the community were selected for structured interview. There was no list available for uninsured members of the community. Therefore, 100 uninsured members were selected with matching technique. For qualitative arm, eligible community members for insured, uninsured and drop-outs were contacted for in-depth interviews. Furthermore, there were 10 Key Informant Interviews with community stakeholders.

Inclusion criteria included: all the households that were permanent residents of Karachi, eligible to participate in FHI, and members of the particular ethnic community. In insured group only those

members were included who have been members of the scheme since at least last one year. Exclusion criteria included friends and family members of the primary investigator, employees of the particular insurance company and voluntary members of the area committee that are working for the marketing of this scheme.

Data Collection Instruments: For qualitative arm, semi-structured interview guides were used. Each participant was interviewed in-depth to explore factors that influence their enrollment status. Several probing questions were asked to understand perceptions. Interviews were conducted for the duration of upto 60 minutes per participant. Data was collected till theoretical saturation was attained. The interviews were conducted in local language i.e., Urdu. For quantitative arm, an investigator derived structured questionnaire was administered. The questionnaire included questions related to knowledge of insured and uninsured members of the community regarding package of FHI scheme. Furthermore, questions related to possible reasons for enrolling and not enrolling households in scheme were asked. This study was approved by ERC of Aga Khan University.

Ethical issues: The study was approved by Aga Khan University Ethical Review Committee.

Results

Factors influencing enrollment of community members in CBHI schemes can be broadly categorized into two themes: demand side and supply side factors. The results of this study were hence classified according to the conceptual framework adapted from Hossain, D. J., Khan, J. A., &Dror, D. [22]. Lincoln and Guba's criteria (1986) was followed to ensure trustworthiness [23].

Demand Side Factors:

Demand side factors are those factors that are related to community members' awareness, understanding, education level and affordability to pay. These factors have played a vital role on the up-take of FHI scheme.

Perceptions about insurance related terminology:

Key Informants from community shared there is inability to understand medical jargons and hidden meanings of insurance terminology as one of the KI stated: "Language is very important if you say anything like pre-existing you should translate it into Urdu and explain very clearly then community members can understand better."(IDI-I9)

Awareness about FHI scheme:

Table 1 shows that only 58% of the insured members had proper knowledge about the services covered in the scheme as compared to 51% among the uninsured members.

In the qualitative phase, stakeholders indicated that the community expects everything to be covered in the insurance scheme. Also, a common concern shared was regarding exclusion from the insurance coverage on the basis of pre-existing conditions. They felt that if community members have to pay for pre-existing conditions out of pocket, then there is no use of paying yearly premiums. A KI stated: "let's suppose I have cholesterol problem or if I want to do my bypass then it is included in pre-existing, I have enough money then I can do that otherwise I can't. Because it is included in pre-existing, so why I get policy if I bore 90 % myself then obviously 10% is nothing. it is better for me I want to save this money in any bank."(IDI-I9)

Table 1: Knowledge about FHI scheme

Services covered under FHI scheme	Uninsured Group n=94	Insured Group n=96
	% of correct responses	
Immediate Emergency Care only	81%	55%
Emergency Care leading to hospitalization	68%	83%
Inpatient Services	49%	83%
Outpatient Services	86%	82%
Pregnancy and Child birth services	79%	92%
Diagnostic Testing	30%	28%
Pre-hospitalization consultancies	18%	31%
Post-hospitalization medicines	22%	28%
Post-hospitalization consultancies	23%	35%
Total Mean Score	**51%**	**58%**

Table 2: Reasons for enrolling in FHI scheme

Reasons for enrolling	Response	Percentage (n)
Solidarity / Social responsibility	Yes	62.5% (60)
	No	37.5% (36)
Protection against unexpected financial burden of illness	Yes	86.5% (83)
	No	13.5% (13)
Peer pressure	Yes	11.5% (11)
	No	88.5% (85)
Previous history of medical illness in family	Yes	34.4% (33)
	No	65.6% (63)
High risk of diseases in family	Yes	25% (24)
	No	75% (72)
Satisfied with quality of services offered	Yes	66.7% (64)
	No	33.3% (32)
Satisfied with the nature of package offered	Yes	80.2% (77)
	No	19.8% (19)
Satisfied with claim process	Yes	56.3% (54)
	No	43.8% (42)
Trust scheme's management	Yes	75% (72)
	No	25% (24)
Had benefited from the scheme in past	Yes	33.3% (32)
	No	66.7% (64)
As per guidance of Community Religious Leader	Yes	95.8% (92)
	No	4.2% (4)
Premiums are affordable	Yes	90.6% (87)
	No	9.4% (9)

Table 3: Reasons for not enrolling in FHI scheme (n=94)

Reasons for not enrolling	Response	Percentage (n)
Already insured by employer	Yes	36.2% (34)
	No	63.8% (60)
Did not know about the scheme	Yes	12.8% (12)
	No	87.2% (82)
Could not understand the insurance details/terminology	Yes	7.4% (7)
	No	92.6% (87)
Could not understand English language	Yes	1.1% (1)
	No	98.9% (93)
Already enrolled in other company's scheme	Yes	21.3% (20)
	No	78.7% (74)
Do not want insurance	Yes	13.8% (13)
	No	86.2% (81)
Cannot afford to pay premiums	Yes	9.6% (9)
	No	90.4% (85)
Went to enroll but not allowed by organizers (ineligible)	Yes	2.1% (2)
	No	97.9% (92)
Went to enroll but not guided well by organizers	Yes	1.1% (1)
	No	98.9% (93)
Do not trust in the scheme's management	Yes	1.1% (1)
	No	98.9% (93)
Not satisfied with the conditions of scheme	Yes	9.6% (9)
	No	90.4% (85)
Not satisfied with quality of services provided at hospital	Yes	1.1% (1)
	No	98.9% (93)
Not attracted to the nature of package offered	Yes	8.5% (8)
	No	91.5% (96)
Had a bad experience with any insurance in the past	Yes	3.2% (3)
	No	96.8% (91)

Education level:

From quantitative survey, it is evident that the level of education is higher in insured group as compared to uninsured group indicating that educated group values health insurance more than the less educated. About 66% household heads of insured group are at least graduatesas compared to 36% household heads in uninsured group (Table 4).

People with good education enroll their families, and guide other members of the community to enroll too. A KI stated: "New families who come to us, and those who have awareness about insurance and they are educated people have come to us. They registered and availed this policy. Those who availed it, told about it to at least one friend or encouraged them to too avail it for their family." (IDI-SH6) Insured members of the community expressed their views that less educated people do not recognize the importance of the protection against unexpected medical expenses. They do not see any visible benefit from insurance.

Ability to pay:

As per quantitative survey, the income ranges of uninsured group suggest that more than 76% of the people in the uninsured group fall above income of Rs. 30,000 (Table 4). Moreover, only 10% of the uninsured group has responded that they cannot afford to pay premiums (Table 2). Hence, affordability could not be an issue for that group. This suggests there are other reasons beyond affordabilitydue to which people do not enroll. On the other hand, in insured group about 44% of the people have income less than or equal to Rs. 30,000 (Table 4). This comparison suggests that the rich do not participate in this insurance scheme as compared to their counter parts. Among uninsured community members, in case of hospitalization dependence on community welfare mechanisms is 26%, whereas 16% will sell their assets, 15% will take loans, 9% will delay their treatments, 8% will switch to other healthcare providers, and 6% will mortgage their valuables. The remaining 20% people have either got medical coverage from their employees or have medical coverage through other insurance schemes.

There is an over dependence of welfare mechanism as one of the KI stated: "The poor people will have no other option to go and ask for welfare. Rich will pay from their pockets." (IDI-D5) The non-affording people think that insurance scheme does not cover all things. So, it is better to depend on welfare. Instead of paying premiums yearly, the poor people think that they will apply for welfare in case they would face illness.

A few insured members of the scheme feel that in the community there is an inability to prioritize health against other social benefits such as: wearing expensive wardrobe; purchasing expensive mobile phones; dining at expensive restaurants; and investing in amusement related activities. One of the KI stated: "People choose to dine out and pay bills of at least 5000 for a dinner then why can't they protect their family's health for 6900?" (IDI-SH2)

Supply Side Factors:

Supply side factors are those factors that are related to system and insurance provider such as trust in scheme's management, quality of services provided in hospitals, claims' approval process and nature of package offered.

Trust in scheme's management:

Table 4: Difference in demographic variables between Insured and Uninsured

Variable	Insured	Uninsured
	% (n)	% (n)
Income Range		
< PKR 15,000	4.2 (4)	7.5 (7)
>PKR 15,000 to <PKR 30,000	39.6 (38)	16.1 (15)
> PKR 30,000 to <PKR 60,000	32.3 (31)	40.9 (39)
> PKR 60,000 to <PKR 100,000	14.6 (14)	18.3 (17)
> PKR 100,000	9.4 (9)	17.2 (16)
Education Level		
Never went to school	1 (1)	0
Less than 5th grade	3.1 (3)	0
More than 5th and less than 10th	6.3 (6)	26.6 (25)
10th to 12th grade	24 (23)	37.2 (35)
Bachelors	39.6 (38)	29.8 (28)
Masters and above	26 (25)	6.4 (6)
Number of people with known Non-Communicable Disease (NCDs)		
0	37.2 (35)	45.8 (44)
1	46.8 (44)	40.6 (39)
2	13.8 (13)	11.5 (11)
3	2.1 (2)	2.1 (2)

It was evident that the major reason for enrollment was: the influence of religious leadership (96%), and trust in scheme's management (75%) (Table 2). Even in the uninsured group, only 2% of the community members did not trust scheme's management. However, drop-out members have shown concerns that in the name of religious leadership, management does not guide community members about the hidden terms and complexities of the scheme. This negative use of religious leadership's name in marketing, results in knowledge gap among insured members because they enroll their families with emotional influence of religious leadership although they are unaware of the package.

Quality of services provided at hospital:

About 67% of the insured households were satisfied

with the quality of services provided by hospitals (Table 2). This suggests that the service provided at hospitals is a positive factor for enrollment. However, in qualitative phase, insured members of community have shown concerns regarding hospital staff's discriminated behaviour with insured clients.

Claim's Reimbursement / Approval process:

About 34% of the insured group claimed for approval or reimbursement. Out of 33 cases, 70% got their claims answered within four weeks and the remaining 30% had delayed responses. Also, 58% got full claim, 30% got partial claim and the remaining 12% were rejected with reasoning.

There has been a common concern that the process of claim and pre-approval is not explained to community before enrollment. This is an extremely tedious process to seek approval for claims. In case of emergency, an attendant cannot leave the patient alone and run after financial matters as a KI stated: "You have to go behind doctor and ask them several times to fill a form for you. Without that form, you cannot apply for claim." (IDI-I3)

Nature of package offered:

80% the insured members of the community were satisfied with the services covered in the health insurance package (Table 2). In contrast, only 9% of the uninsured members were not attracted by the nature of package offered, and not satisfied with the conditions of the scheme.

Discussion

This study revealed that the rich people do not participate in community based health insurance scheme as compared to poor households. The findings of the study are consistent with study conducted in Afghanistan. In Afghanistan, the voluntary enrollment of non-poor households remained low as compared to free enrollment of poor households mainly due to demand side factors. With respect to affordability of premiums, 42% of the interviewed participants stated that the premiums were too high. In India, evidence suggests that the household's socio-economic status is not significantly inhibiting the enrollment. For example, marginal tribes are also enrolling in the schemes. Also, households with

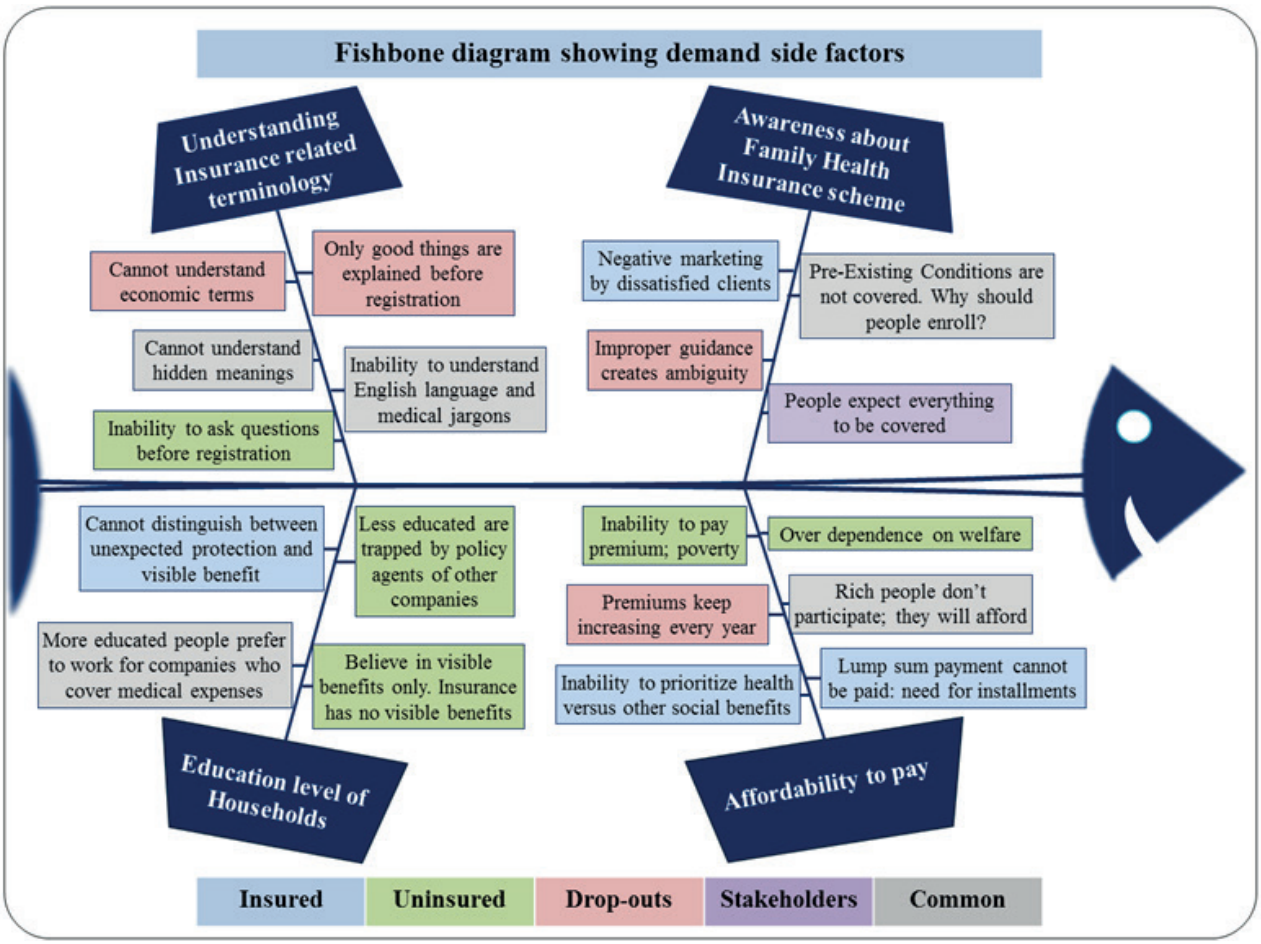

Figure 1 showing summary of results for demand side factors

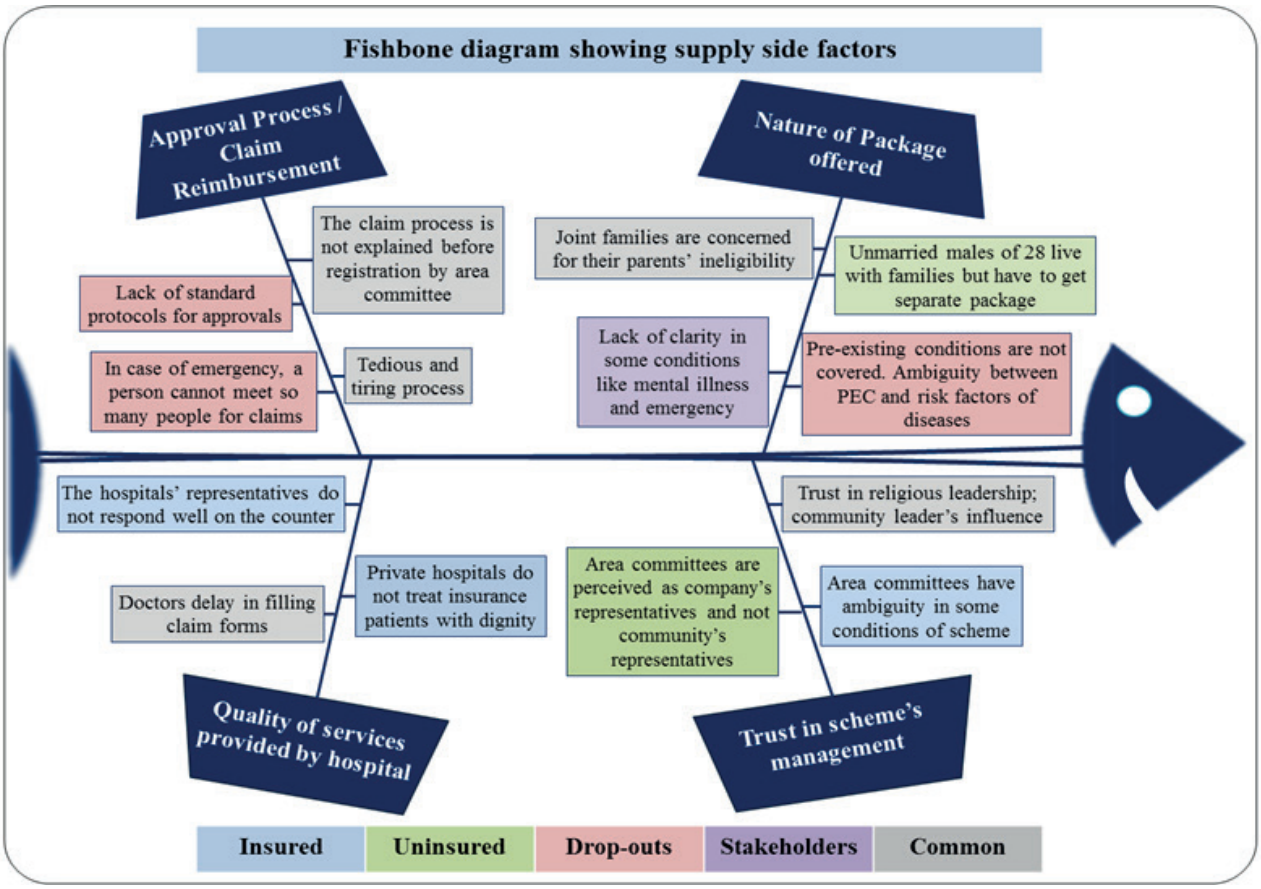

Figure 2 showing summary of results for supply side factors

greater financial responsibilities presume insurance schemes more striking and cost-effective. In contrast, the rich households buy insurance more than the poor households in Sri Lanka. Besides affordability, community members in this study stated concerns regarding the lump sum payment of premiums. In Afghanistan also, 9% of the people were not comfortable with the timings of premium payment and enrollment.

Education of household heads facilitated better understanding of insurance schemes and their processes. As the decision to enroll is much dependent on the household heads' perceptions about illness expenditures[24]. This study affirms the previous findings that more educated people tend to get health insurance. Besides education level of household head, the knowledge about scheme also affects the uptake of health insurance. In Afghanistan, 30% of the enrolled people were unaware of the scheme's benefits and processes [25]. This is consistent with the findings of this study that majority of the insured households are unaware of scheme's benefits and coverage.

This study also revealed that the average household size of family is large in insured group as compared to uninsured group. This finding is consistent with a study conducted by Bendig and Arun stating that house hold size was associated with high insurance intake as people believe that their risks are more with large family size[26]. Hence, when they insure their whole family it is more likely that they avail the services and their contributions are not wasted.

Moreover, this study showed that prevalence of NCDs is more in uninsured group as compared to insured group. Hence, those people who understand that their illness will not be covered in the package opt not to enroll themselves. These findings are contradictory to the research conducted in India which states that less healthy people and chronically ill people buy insurance schemes more than healthy people indicating adverse selection [17]. Adverse selection i.e., old age people and chronically ill people tend to buy insurance in Sri Lanka as well.

Quality of services provided at hospital was revealed not to be a major factor in our study. In FHI scheme, enrolled members were free to avail services in

any government or private sector hospital for their approved treatment. However, other services at hospital that facilitates the insurance process were found to be dissatisfactory. As the doctors and support staff were not facilitating the claim's process, community members were less satisfied with the delays in filling claim forms. These findings are coherent with the study done in Afghanistan where, 26% of the surveyed population was not satisfied with the quality of services provided [25]. Also, in India, a study identified 12 barriers faced by enrolled members in utilization the Self Employed Women's Association (SEWA) scheme. The most common barriers were regarding the weak linkages of SEWA management with its enrolled members in few districts, fear of claims being rejected, difficulty in claim processing, lack of cooperation from doctors collecting claims and ambiguity in the process of reimbursement [27].

This study had few strengths and limitations. This was the first study that has: explored CBHI in qualitative design to understand the factors with the help of community stakeholders' and community members' experiences; enlisted few system level barriers to ensure that CBHI schemes in future are assessed on both demand and supply side for their sustainability; highlighted few operational steps to start small level CBHI schemes in Pakistan; mixed methods of data collection ensured generalizability of findings within community; ensured the potential of transferability of results to other communities having similar context.

Conclusions

There is dire need to conduct studies on the factors that lead to dependence of people on welfare mechanisms versus health insurance schemes. Also, there could be future research on the scalability of such scheme in other parts of Pakistan. The study findings suggest that the demand side and supply side factors mentioned in the results must be dealt hand in hand to increase the enrollment of community members.

Authors' contributions:

Conception and design: Hussain Maqbool Ahmed Khuwaja, Dr Rozina Karmaliani.

Acquisition of data: Hussain Maqbool Ahmed Khuwaja.

Analysis and interpretation of data: Hussain Maqbool Ahmed Khuwaja, Dr Rozina Karmaliani.

Drafting of the manuscript: Hussain Maqbool Ahmed Khuwaja, Dr Rozina Karmaliani

Critical revision of the manuscript for important intellectual content: Dr Rozina Karmaliani, Muhammad Ashar Malik, Dr Rozina Mistry

Statistical analysis: Hussain Maqbool Ahmed Khuwaja

Supervision: Dr Rozina Karmaliani, Muhammad Ashar Malik, Dr Rozina Mistry

Conflict of interest: The authors have no conflict of interest.

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