

Original Research Article

Medical crowdfunding and COVID-19: awareness and perception of healthcare professionals and role of crowdfunding platforms in India

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ABSTRACT

Background: In developing countries like India, where out-of-pocket expenditure forms a large part of overall health spending, crowdfunding can be an alternative to ease peoples' financial burden. The COVID-19 pandemic in India imposed a huge financial strain on people causing many to turn to crowdfunding to pay for their medical expenses. Health professionals can play an important role in raising awareness among people regarding medical crowdfunding. The aim of the study was to assess the awareness and perception about crowdfunding among health care professionals and analyse COVID-19 relief campaigns run by selected crowdfunding platforms in India.

Methods: A mixed methods study was conducted including cross-sectional online survey among healthcare professionals and secondary analysis of COVID-19 relief campaigns run by crowdfunding platforms in India.

Results: Among 155 participants in our study, 121 (78%) were aware about crowdfunding and most of them (93%) had come to know about crowdfunding during the pandemic. Participants who had previously known someone who required funds to support their medical treatment had greater knowledge regarding crowdfunding ($p=0.04$) and believed that crowdfunding can reduce individual financial burden ($p=0.02$). However, 30% participants did not trust online crowdfunding platforms to be genuine. Three crowdfunding platforms (Ketto, Milaap and Impact Guru) were analysed for COVID-19 relief campaigns- most campaigns were run to raise funds for medical oxygen/oxygen concentrators.

Conclusions: We found that previous experience of unmet financial need affects both knowledge and trust in medical crowdfunding. There is a need to improve awareness and confidence related to crowdfunding among health care professionals.

Keywords: Medical crowdfunding, COVID-19, Healthcare professionals, Crowdfunding platforms, Awareness, Perception

INTRODUCTION

Crowdfunding has a long history which has evolved over time and spread across sectors. In the recent past, crowdfunding has been gaining popularity in the health sector, especially to fund individual patients' unmet medical needs. This especially applies to settings with gaps in health coverage and lack of access to affordable health care.^{1,2} In countries where individuals have to bear huge

amounts of out-of-pocket expenditure to avail health care services, such as India (household OOPE estimated to be 48.8% of the total health expenditure), crowdfunding can be an important tool to reduce the people's financial burden.³ Crowdfunding is a mechanism of financing where funds are collected from a pool of people in small amounts with the help of an intermediary and are made available to the fund seeker. Crowd funding platforms act as an intermediary, which link the donor oblique investors and

the fund seekers.⁴ The fund seekers describe their financial requirement on the crowd funding platforms in terms of amount, purpose, timeline and any return to the investors. These platforms traditionally charge a fee to the fund seeker from the amount collected for the service provided.⁵ Some of the crowd funding platforms which are active globally are Kickstarter, Indiegogo, GoFundMe, Patreon, etc. and in India are Ketto, Milaap, Impact Guru, etc. Crowdfunding provides financial relief to many people and also prevents them from bankruptcy in sudden medical emergencies or for funding treatment of chronic diseases. In India, the concept of crowdfunding is not new because the 'chanda' which is collected for various socio-cultural activities is very similar to crowdfunding. However, the use of online platforms in sourcing crowd funds makes it different from what is traditionally practiced in India. The rapid growth of online crowd-funding platforms in the health sector in India has provided an alternate system for people to meet their healthcare financing needs. However, it is a relatively new concept and is still in infancy in India.⁶

During the COVID-19 pandemic in India, many had turned to crowdfunding to pay their hospital bills and it had become a substitute for health insurance and Government support. Crowdfunding has become an alternate safety net to fill the gaps in the health care system.⁷ A preliminary study conducted in India during the pandemic estimated that two-thirds of the self-employed and half of the salaried workforce could not afford to pay for critical care.⁸ Among the poorest 230 million Indians, nearly 90 percent have borrowed a median amount of \$201 to pay their medical debts.⁹ Knowledge about crowdfunding among health-care professionals is highly beneficial. Patients with requirement of funds for medical treatment, who can neither meet the eligibility for government health insurance schemes nor afford expensive life-saving treatment, can be advised regarding the available option of crowdfunding to fulfil their medical requirement without facing impoverishment. There is a lack of available literature from India regarding the extent to which health care professionals are aware of medical crowdfunding and how they perceive its benefits or otherwise. The present study thus aims to assess the knowledge and awareness about crowdfunding among health care professionals and to understand the functioning of various crowdfunding platforms in India that conducted COVID-19 relief campaigns.

METHODS

This mixed methods study was conducted during April and May 2021, using both primary and secondary approaches.

Primary research

Study participants and sample size

A cross-sectional online survey was conducted on health-care professionals across India. The study included both male and female participants. Due to lack of availability of

previous literature with respect to the outcome variable of interest, awareness regarding crowdfunding among health-care professionals was considered to be 50%. Assuming 10% absolute precision and 5% level of significance yielded a sample size of 100 using Cochran's sample size formula for population proportion.

Study tool and method of data collection

An online survey was conducted using a semi-structure questionnaire which included questions on socio-demographic variables and awareness and perception about crowdfunding. Most of the questions were dichotomous in nature. The questionnaire was adapted in Google forms which were circulated through online platforms (Whatsapp, email). Snowball sampling method was used where the questionnaire was circulated to all contacts of investigators who met the eligibility criteria and the participants were then encouraged to forward the questionnaire further to their contacts using online platforms. All responses were recorded and stored in Microsoft Excel Spreadsheet. Data was analyzed using Open-Epi software/with help of pivot table in Microsoft Excel Spreadsheet. Qualitative variables were expressed in frequency and percentages. Chi-square test was performed to compare qualitative variables. A value of $p < 0.05$ was considered to be statistically significant.

Secondary research

Literature search and inclusion criteria

In order to obtain information on crowdfunding campaigns in India specific to COVID-19 relief, online search was performed. The crowdfunding platforms which conducted campaigns around relief activities for the COVID-19 pandemic, according to our search results, were screened. Crowdfunding websites that had their locational presence in India and contained relevant information about the campaigns conducted, financial considerations including raised amount, goal amount, number of supporters and money raised, were considered for inclusion. Among them top 100 campaigns were selected and due to the volume of COVID-19 related campaigns, only those campaigns were considered where more than 50% of the target funds were raised. Data related to campaigns which was available on their websites over public domain was extracted.

Data collection and analysis

The data collected from the crowdfunding websites viz., campaigns conducted, their goal amount versus raised amount and number of supporters were recorded, stored and analyzed using Microsoft excel spreadsheet.

Ethical considerations

Details like objectives of the study and relevance of participation was added in the beginning of the data collection form, followed by a statement of consent to be

declared by the participant. All completed questionnaires which were received by the investigators therefore had the individual's informed consent for participation in the study.

The questionnaire did not collect any identifiers from the participants. The collected data was kept confidential and was used only for the purpose of the study. The study was started after obtaining approval from the Student Review Board of IIMR Delhi.

RESULTS

We present the results of our study, which was conducted during the COVID-19 pandemic, in two parts - awareness and perception of health care professionals in India regarding medical crowdfunding and analysis of major crowdfunding platforms in India based on campaigns around COVID-19 relief.

Awareness and perception regarding medical crowdfunding among study participants

A total of 157 responses were received, of which 155 were analyzed after eliminating incomplete responses. Two-thirds of the participants (66%) were between 25 and 35 years of age and 27% were less than 25 years old. Most of the respondents were health care managers (69%), and the remaining were from clinical fields mainly medicine, dentistry and physiotherapy. We found that most of our participants (78%) knew the term crowdfunding and were aware about medical crowdfunding.

However, a relatively lower proportion of around 56% could name one or more online crowdfunding platforms which are functioning in India. Almost 93% of the respondents who were aware of medical crowdfunding said that they had come to know about crowdfunding campaigns during the COVID-19 pandemic. Knowledge regarding crowdfunding was greater among those participants who had previously known someone who required funds to support their medical treatment ($p < 0.05$).

A staggering 95% of our respondents felt that a financial gap exists for obtaining health care services for COVID-19 care and treatment of whom 78% were aware of crowdfunding. Most of them opined that crowdfunding could solve individual financial crisis to meet medical needs (67%). However, 60% respondents perceived a medical loan/ medical insurance to be a better option than crowdfunding when it comes to financial protection.

Figure 1 shows the perception regarding different aspects of medical crowdfunding among study participants who reported to be aware of crowdfunding.

Overall, we received a favorable opinion with over 80% respondents believing that crowdfunding could become a major alternative mechanism of health financing in India.

Medical crowdfunding is all about donating to people who are in need, without knowing anything about them personally. When asked about donating to strangers who are in need, 85% of our participants responded in favor. Among those respondents who knew about crowdfunding, almost three-quarters were willing to donate to crowdfunding platforms while the remaining were comfortable in donating directly to civil society organizations that pool funds for medical causes. We asked the respondents which specific COVID-19 crowdfunding campaign could prove to be successful to help affected patients and families and 90 out of 121 suggested campaigns raising funds for procuring oxygen concentrators, followed by COVID treatment/medicine distribution (84 out of 121), distribution of free meals (53 out of 121) and PPE kit/COVID related equipment (44 out of 121). We were also interested to know whether our participants were willing to contribute to only those crowdfunding campaigns which were towards COVID-19 relief and most responded that they were willing to donate for non-COVID related campaigns too.

We performed bivariate analysis to determine whether a history of facing or witnessing financial crisis to meet medical expenses affected knowledge and perception to crowdfunding and found significant association with awareness to crowdfunding ($p = 0.047$) and perception that crowdfunding can reduce individual financial burden ($p = 0.022$). There was no significant difference in willingness to donate to crowdfunding between the two groups (Table 1).

Analysis of online crowdfunding platforms

Three Indian crowdfunding platforms were analysed – Milaap, Ketto and Impact Guru. A total of 35, 26 and 12 campaigns for COVID-19 relief, which met the inclusion criteria, had been run till the time of the study by Milaap, Ketto and Impact Guru respectively. Table 2 compares the three crowdfunding platforms and details of their COVID-19 relief campaigns. All crowdfunding campaigns run by Ketto ran the maximum number of group campaigns (organizations which ran campaigns for a cause) as compared to individual campaigns (persons in need who raised campaigns to meet individual medical need). Among group campaigns, the maximum number of campaigns were run specifically for procuring medical oxygen (Table 2).

Several campaigns raised more money than the targets set by the fund seeker. Some examples include an initiative to provide meals and subsistence to daily wage workers in North Delhi and another campaign for 'Doctors for you' both run by Ketto and a donation initiative to help procure oxygen concentrators from overseas to India run by Milaap.

Table 1: Factors affecting knowledge and perception to medical crowdfunding.

Awareness and perception about crowdfunding		History of facing or witnessing financial crisis to meet medical expenses		P value
		Yes (N=78)	No (N=77)	
Knowledge about crowdfunding	Yes	66 (84.6%)	55 (71.4%)	0.047
	No	12	22	
Perception that crowdfunding can reduce individual financial burden	Yes	45 (57.9%)	58 (75.3%)	0.020
	No	33	19	
Willingness to donate to crowdfunding campaigns	Yes	59 (75.3%)	52 (57.5%)	0.263
	No	19	25	

Table 2: Analysis of crowdfunding platforms in India and their COVID-19 relief campaigns.

Details of crowdfunding campaigns		Milaap	Ketto	Impact Guru
Number of COVID-19 campaigns	Group campaigns	20	26	9
	Individual campaigns	15	0	3
	Total	35	26	12
Number of COVID-19 campaigns by cause (group campaigns)	Oxygen/oxygen concentrators	9	8	4
	Hospital/ambulance	2	2	2
	Food distribution	0	5	0
	Relief for underprivileged	2	5	1
	General	7	6	2
	Total	20	26	9
	Target amount for campaigns in million INR (median, range)	Group campaigns	5, 0.75-200	10, 1-600
	Individual campaigns	1.5, 1-3	–	0.3, 0.3-0.4
	Total	2, 0.75-200	10, 1-600	0.75, 0.08-600
Amount raised by campaigns as percentage of target	Group campaigns	80.8%	93.8%	72.1%
	Individual campaigns	73.2%	–	78.1%
	Total	77.5%	93.8%	73.6%
Average percentage amount raised by cause (group campaigns)	Oxygen/oxygen concentrators	91.6%	76.1%	73.1%
	Hospital/ambulance	52.6%	83.9%	69.4%
	Food distribution	–	131.1%	–
	Relief for underprivileged	74.4%	59.6%	78.4%
	General	76.7%	118.0%	69.6%

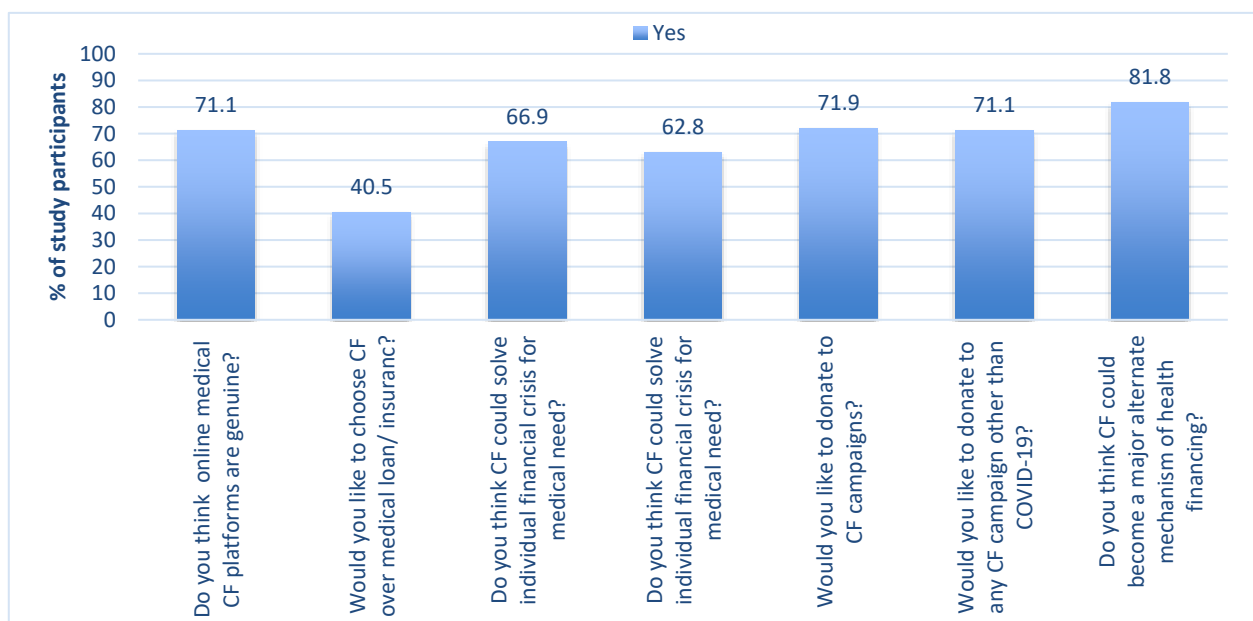


Figure 1: Perception regarding medical crowdfunding among study participants (n=121).

DISCUSSION

The present study assesses the level of awareness, perception about the effectiveness and attitude towards online platforms for medical crowdfunding among health care professionals in India. We found that a fairly good proportion of our study participants knew about crowdfunding but just about half could name the active crowdfunding platforms in India. Though there is limited literature available on this topic, the level of awareness regarding crowdfunding is low among the general population in developing countries as suggested in a study by Vergara.¹⁰ Government initiated disaster relief funds have been in place in the country, which accept contributions from individuals and organizations, like the Prime Minister's National Relief Fund established and the more recent PM CARES for COVID-19. However, the pandemic provided an impetus to non-governmental crowdfunding platforms to raise funds for medical relief.

Medical crowdfunding is still in a nascent stage in India and online platforms have limited penetration to the rural areas since most crowdfunding campaigns run on online platforms and through social media. Success of crowdfunding campaigns depends on their reach which is limited by poor internet connectivity.¹¹ A large proportion of our respondents reported that they came to know about medical crowdfunding during the COVID-19 pandemic. This could be either because medical crowdfunding activities saw a sharp rise during the COVID-19 pandemic in India or because the study participants themselves experienced or witnessed the need for funds during the time.⁹ We also found that participants who reported to have faced or witnessed financial crisis due to medical expenses were more aware and accepting about crowdfunding. This supports the lack of recognition of this concept in India and emphasizes the need to for awareness generation.

Almost 95% of the respondents opined that there exists financial gap in health care service delivery and 71% believed that online crowdfunding platforms are genuine. Despite this only 41% respondents were willing to choose crowdfunding over medical loans and insurance. This clearly shows a shortage of trust in these online platforms as well as the concept of crowdfunding in general among the participants. This may be due to lack of guarantee of achieving the target or the amount required for the intended treatment by crowdfunding unlike in the case of medical insurance where the money can be claimed.

In our study, 85% respondents were willing to donate to the strangers which showed that people are moved by the cause not by the identity of the person. Although donating to governmental and civil society organizations is a comparatively more established practice, our study shows that people are open to participate in crowdfunding, as over 70% of our respondents were willing to donate to crowdfunding platforms. This finding may be influenced by the educational profile of our participants and their access to the internet. This has been corroborated in

previous research.¹¹ Evidence also shows that donation size and donation volume are related with the income level and the education of the donor, respectively. In the same study, fundraising campaigns in areas with high education received almost twice as much as funds as areas with low education.¹² Most of our participants felt that campaigns for medical oxygen are most needed and therefore would be most successful. This could be due to the fact that our study was conducted during and after the second wave of the pandemic in India when an acute shortage of medical oxygen and oxygen concentrators was seen in several parts of the country.

Over 80% of our participants felt that that crowdfunding can become a significant mechanism of health financing in future. Though there are several sectors where crowdfunding platforms can focus on, most campaigns are designed around entrepreneurship, social causes, science and technology. Moreover, reasons for slow progress of medical crowdfunding in India may be weak policy support, absence of legal regulation, lack of public awareness and sociodemographic profile of the population.^{6,13}

On analysis of crowdfunding platforms in India with respect to COVID-19 assistance campaigns, we found that the campaigns run by Ketto amounted to the highest target at 157 crore rupees at the time of the study, 72% of which was achieved. There are several factors that may be responsible for better achievement of target amounts in crowdfunding, most important of which are its business model and promotion techniques like positioning of the campaign in the website to improve visibility and using pictures of the patient and the severity of their medical condition.¹⁴

We expect our study will add to available literature since crowdfunding in India is in its nascent stage and hence there are very few supporting articles on this subject. Our study has explored medical crowdfunding from the health care professionals' perspective which, to the best of our knowledge, has no previous evidence available from India. We have included a larger sample size than calculated which will increase the precision of our estimates. However, most of our study participants were health managers and we recommend further studies on other groups of the health workforce including students pursuing health care studies.

CONCLUSION

In conclusion, awareness regarding crowdfunding and its scope in the health sector among health care professionals should be improved. This may be an important step in enabling the growth of medical crowdfunding in India.

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Conflict of interest: Pooja Bishnoi had worked with Impact Guru as an intern

Ethical approval: The study was approved by the Institutional Ethics Committee

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