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Letters to the Editor

Trend in COVID-19 vaccination among people with diabetes: A short study from India

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With the widely known measures to prevent COVID-19, one more is added to the list. That is, the COVID-19 vaccines which (two vaccines-Covishield: AstraZeneca-Serum Institute of India and Covaxin Bharat Biotech Limited) [1] was authorized by the Drugs Controller General of India (DCGI) for emergency use in India. As people above 60 years and people with co-morbidities above 45 years were announced eligible for vaccination in India, we conducted a survey among our out-patients to know the number of people vaccinated and the reasons for not taking it.

This is a cross-sectional, single-centred survey. People with diabetes who attended the out-patient department of MV Hospital for Diabetes, Chennai between March 31, 2021, to April 9, 2021, & were above 18 years of age were approached for this survey and included after receiving their consent [Institutional Ethical Committee approval (IEC/N-008/03/2021)].

A total of 214 participants were surveyed & their mean age were 55.01 years (Mean & Standard deviation (M&SD) = 55.01 ± 11.64; min-25 years & max-83 years). Mean duration of diabetes were 11.15 years (M&SD = 11.15 ± 9.56) (Table 1).

A total of 7.5% of the study participants had previous history of COVID-19 in which 43.7% participants were treated in outpatient and others as in-patient.

Among the study participants, 21.5% (n=46) had taken at least one dose of the COVID-19 vaccine. Approximately 17% (n=37) of the study participants had received only one dose. Both the doses were received by 9 participants (4.2%). Among the vaccinated study participants, 18 participants had received Covaxin, and 28 participants had received Covishield. The majority of the vaccinated study participants received their vaccine at a government facility nearby (n=31, 67.4%).

Most of the study participants who have not taken their vaccine mentioned they would take the vaccine after their diabetologist's advice (n = 46, 27.4%). The second reason for not taking the vaccine was fear (n = 45, 26.8%). The other reasons includes:

> Age bar (n = 35, 20.8%)

- > Health issues (Eg. under gynecologist treatment, due to co-morbid conditions like diabetes, hypertension) after physician advice (n = 32, 19%)
- > Not aware of the vaccine (n = 18, 10.7%)
- > Will take soon (n = 11, 6.5%)
- > Not willing (n = 6, 3.6%)
- > Others (n = 2, 1.2%) (Fig. 1).

Table 1

Results of the survey.

S.NO.	VARIABLE	NUMBER (%)
1.	Total participants	214
2.	Gender	
	Male	112 (52.3%)
	Female	102 (47.7%)
3.	Age (M±SD)	55.01 ± 11.64
4.	Duration of diabetes (M±SD)	11.15 ± 9.56
5.	Hypertension	78 (36.4%)
6.	Cardiac illness	32 (15%)
7.	Renal impairment	26 (12.1%)
8.	Previous history of COVID-19 infection	16 (7.5%)
9.	Treatment received for COVID-19 (n=16)	
	Out-patient	7 (43.7%)
	Admission	9 (56.3%)
10.	Received COVID-19 vaccine	46 (21.5%)
11.	Vaccination details	
	Covaxin	18 (8.4%)
	Covishield	28 (13%)
12.	Received vaccine in (n=46)	
	Government hospital	31 (67.4%)
	Private	15 (32.6%)
13.	Dose received	
	One dose	37 (17.2%)
	Two doses	9 (4.2%)
14.	Reason for not taking the vaccination (n=168)	
	i Need to take after the diabetologist consultation	46 (27.4%)
	ii Age bar (Below 45 years)	35 (20.8%)
	iii Fear	45 (26.8%)
	iv Planning to take soon	11 (6.5%)
	v Will take after some time (waiting for majority of 4 people to vaccinate)	2 (2.4%)
	vi Health issues (Under Gynecologist consultation, taking aspirin, asthma, doctor advised not to take, afraid as taking medications)	32 (19%)
	vii Not aware about the vaccine	18 (10.7%)
	viii Need to discuss with family members	1 (0.6%)
	ix Not interested/not willing	6 (3.6%)
	x No COVID-19 cases in the neighbour	1 (0.6%)
	xi Not going out	1 (0.6%)
15.	If age bar, willingness to take? (n=35)	
	i Yes	13 (37.1%)
	ii No (Reason: Fear, health issue)	21 (60%)
	iii After doctor consultation	1 (2.9%)

M±SD-Mean±Standard deviation

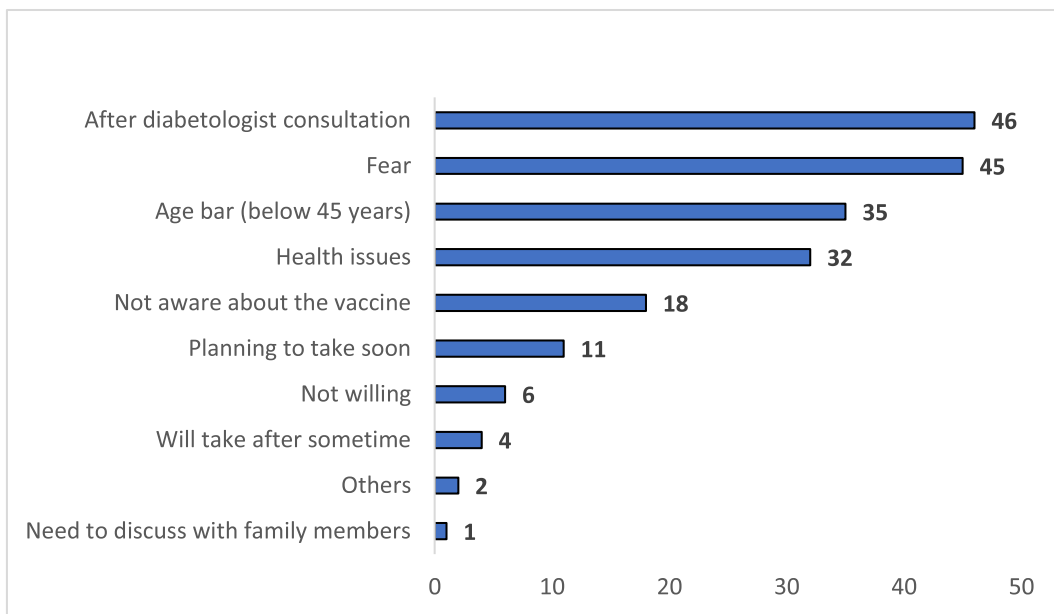


Fig. 1. Reasons for not taken the COVID-19 vaccine.

Vaccine hesitations arised from the day of the announcement of the development of vaccines against COVID-19 worldwide. Various reasons for this includes the efficacy of the vaccines, safety, duration of protection, health literacy, misinformation, lack of trust, need for additional information and cost of the vaccines [2–5] as per the studies conducted across countries.

Physicians play a crucial role in this education & awareness as the people mostly rely on them for decision making and to break the hesitance.

Appendix A. Supplementary data

Supplementary data to this article can be found online at <https://doi.org/10.1016/j.dsx.2021.102190>.

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