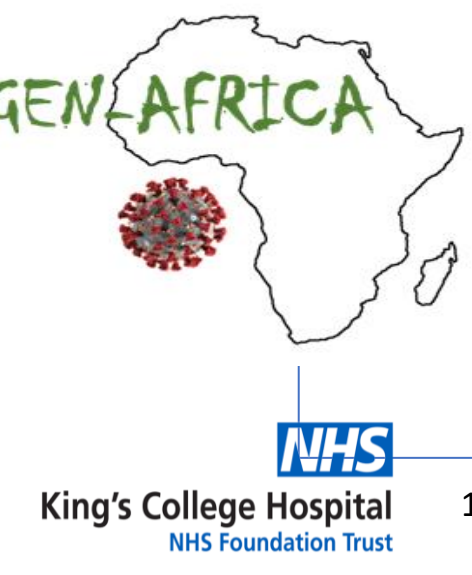


TP02: Beliefs associated with Covid-19 vaccine uptake among people of Black ethnicities living with HIV: The Necessity Concerns Framework

L Campbell ^{1,2}, Z Ottaway ¹, R Hung ², L Cechin ¹, B Barbini ¹, B Santana-Suarez ², L McQueen ¹, L Hamzah ³, S Pett ^{4,5}, S Schoeman ⁶, S Kegg ⁷, J Fox ⁸, S Barber ⁹, A John ⁹, D Onyango ¹⁰, S Tariq ⁵, R Horne ⁵, F Post ^{1,2}



1. King's College Hospital NHS Foundation Trust, London; 2. King's College London, London; 3. St Georges University Hospital NHS Foundation Trust, London; 4. Mortimer Market Centre, London; 5. University College London, London; 6. Leeds Teaching Hospitals NHS Trust, Leeds; 7. Queen Elizabeth Hospital, London; 8. Guys and St Thomas's NHS Foundation Trust, London; 9. Bromley Healthcare, London; 10. University College London, London, UK.

INTRODUCTION

- People of black ethnicities are at increased risk of Covid -19 acquisition, morbidity and mortality compared to those of white ethnicities
- People of black ethnicities are also less likely to take up vaccination including Covid-19 vaccines
- Understanding the reasons driving lower rates of vaccine uptake is critical in addressing health inequities
- We describe Covid-19 vaccine uptake and identify factors associated with uptake of Covid-19 vaccination among people of black ethnicities living in the UK

METHODS

- A questionnaire study among participants of the Gen-Africa study (an observational cohort study of approximately 3,000 individuals of African ancestry with HIV in the UK) between June 2021 and March 2022
- We obtained a history of Covid-19 illness and Covid-19 vaccination
- Participants completed the validated Beliefs about Medicines Questionnaire (BMQ) adapted for Covid-19 vaccination – this comprised 16 questions (6 assessing *necessity* beliefs and 10 addressing *concerns* beliefs) on a 5-point Likert scale, as well as entering free text to clarify concerns about vaccination and what might encourage them to get vaccinated

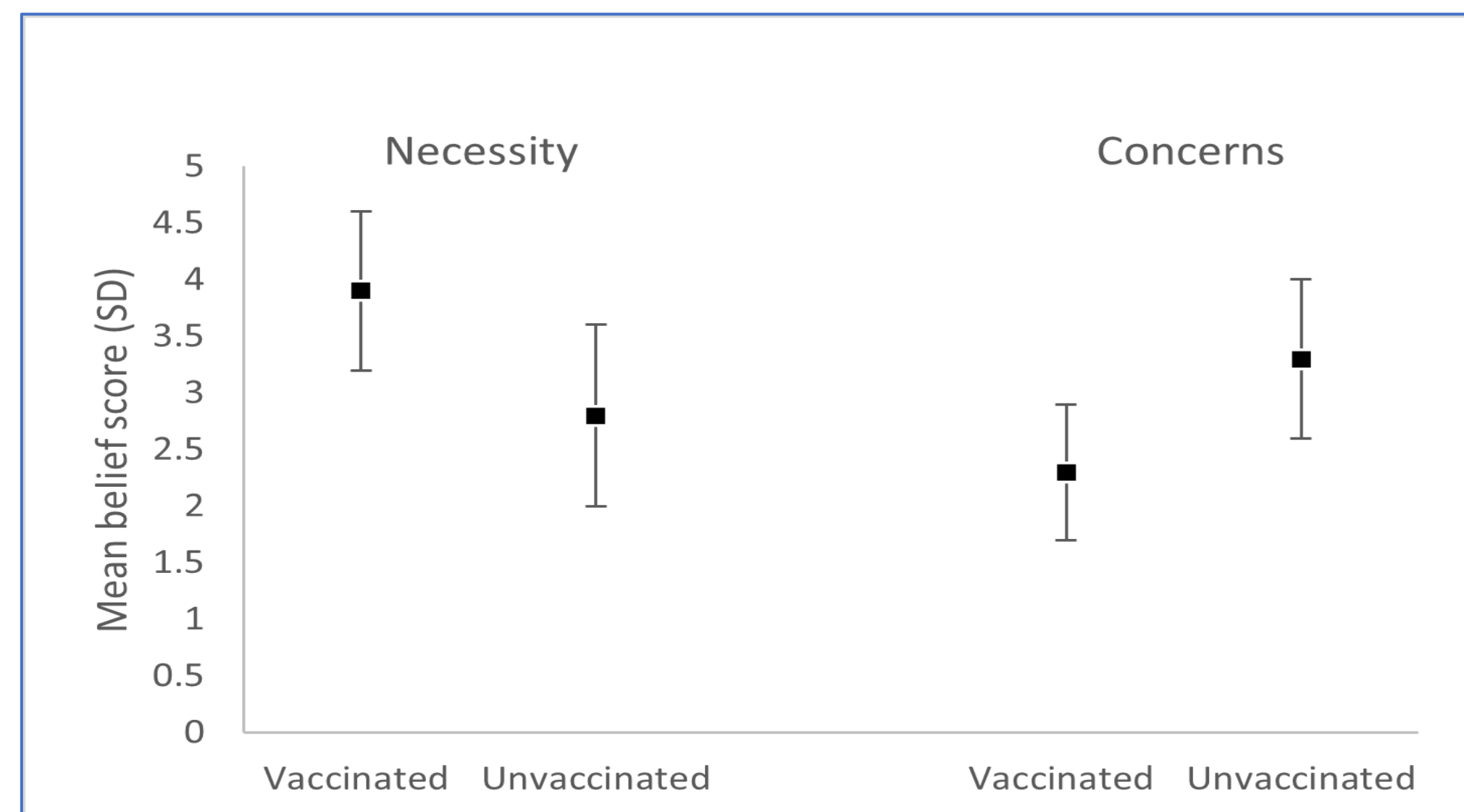
RESULTS

- We enrolled 540 participants across 9 sites; mean age was 53 years, most were born in sub-Saharan Africa and had longstanding and well-controlled HIV (**table**)
- The vast majority (90%) reported having had ≥1 dose of Covid-19 vaccination, 27% reported history of Covid-19 illness, 64% knew a person who had had Covid-19, and 45% knew a person who had died of/with Covid-19
- Vaccinated participants were more worried about Covid-19 and were more likely to think COVID-19 was very dangerous
- Vaccinated participants had **higher necessity scores** (reflecting beliefs that vaccines offer protection and allow for return to normal life); unvaccinated participants had **higher concerns scores** (reflecting concerns about side-effects and vaccines containing microchips or materials from pigs or foetus) (**figure**)

Table: Characteristics of the study participants

		All n=540	Vaccinated n=485	Not Vaccinated n=55	p-value
Age, years	Mean (SD)	53.3 (16)	53.8 (17)	49.7 (10.2)	0.08
Sex, female	N (%)	270 (54)	262 (54)	29 (55)	0.8
Region of birth					0.09
sub-Saharan Africa	N (%)	413 (77)	377 (78)	36 (65)	
Caribbean	N (%)	46 (9)	39 (8)	7 (13)	
UK/other	N (%)	76 (14)	64 (13)	12 (22)	
Time since HIV diagnosis, years	Mean (SD)	13.9 (6.6)	13.9 (6.6)	13.6 (6.9)	0.61
Nadir CD4 cell count, cells/mm ³	Mean (SD)	246 (204)	238 (197)	321 (248)	0.02
Recent CD4 cell count, cells/mm ³	Mean (SD)	595 (272)	591 (273)	637 (270)	0.33
HIV RNA <200 copies/mL	N (%)	497 (92)	446 (92)	52 (94)	0.62
Diabetes	N (%)	54 (10)	48 (10)	4 (8)	0.73
Hypertension	N (%)	194 (36)	184 (38)	14 (25)	0.12
Cardiovascular disease (IHD/CCF)	N (%)	22 (4)	19 (4)	3 (6)	0.73
BMI, kg/m ²	Mean (SD)	29 (6)	29.8 (5.9)	30.0 (8.3)	0.85
Reports:					
COVID-illness	N (%)	146 (27)	130 (27)	16 (29)	0.91
Knows someone who had Covid-19	N (%)	261 (64)	235 (64)	26 (61)	0.65
Knows someone who died from Covid-19	N (%)	183 (45)	172 (47)	11 (26)	0.008
How worried are you about Covid-19?	N (%)				
Not worried		109 (25)	88 (23)	21 (44)	0.003
A little bit worried		165 (38)	146 (37)	19 (40)	
Quite worried		56 (13)	54 (14)	2 (4)	
Very worried		108 (25)	102 (26)	6 (12)	
How dangerous do you think Covid-19 is?	N (%)				<0.001
Not dangerous at all		43 (10)	32 (8)	11 (23)	
A little bit dangerous		92 (21)	76 (19)	16 (33)	
Quite dangerous		115 (26)	104 (27)	11 (23)	
Very dangerous		188 (43)	178 (46)	10 (21)	

Figure: Necessity and concerns scores, vaccinated vs. unvaccinated



Stated concerns about Covid-19 vaccines: religious concerns (about vaccine constituents); irreversible; may alter DNA; bioweapon technology; medical history

I can't take the vaccine because of too many allergic reactions that I have. I rather die naturally than to die of the vaccine. African, F, 65

I do not trust the vaccine and my mind is not ready to have it. I'm not prepared, morally, physically to have this vaccine. I feel like they force me. African, F, 46

I am not likely to have a vaccine because I feel I do not need it. Building my immune system to counter any infection is really what I am doing. I have always seen it as a form of Flu virus and so it stays with me like that. African, F, 55

A biologically enhanced product is not needed to fight a virus. Instead, people should be encouraged and informed on ways of enhancing their body's own defence system to prevent viral infections. Caribbean, M, 29

What would persuade you to be vaccinated?

- Informed choice including full discussion of trial data
- Full disclosure of results of vaccine trials
- 100% efficacy against COVID-19 acquisition
- Single dose
- Choice of vaccine
- Mandatory (or required for travel)
- More data on long term effects including fertility

CONCLUSIONS

We report a high uptake of COVID-19 vaccination among people living with HIV of black ethnicities. High vaccination concerns scores and low vaccination necessity scores were associated with being unvaccinated. We are currently undertaking qualitative research to explore the experiences of COVID-19 and the drivers of vaccine non-uptake in this population. Understanding and addressing concerns and misinformation through robust community engagement is critical if we are to address health inequities.