Supplementary Data 3: Table for qualitative studies

Author and year	Country	Types of study	Population HCW	Objectives	Attitude on vaccine
(Yaseen et al., 2022)	Pakistan	Qualitative (semi- structured questionnair e)	Pharmacist s	To explore the perceptions regarding COVID-19 conspiracies and their willingness to get vaccinated	Hesitancy: adverse reaction, cost of COVID-19 vaccine, limited data on safety and efficacy, myths and rumors about the COVID-19 vaccine
(Hulen et al., 2022)	US	Mixed- method (open-ended questionnair e via web- based)	HCWs	To describe reasons for vaccine acceptance and hesitancy	Reasons for acceptance: individual and community health; protect vulnerable and unvaccinated family members; promote patient and workplace safety; scientific evidence. Reasons for hesitancy: concerns with safety and risk profile of vaccine; mistrust in vaccine development; personal choice; openness to future vaccination.
(Aci et al., 2022)	Turkey	Qualitative (focus group interviews)	HCWs	To investigate the attitudes of healthcare workers in Turkey in relation to COVID-19 vaccines.	 Themes and subthemes Influencing factors: negative emotions, social media, vaccine and vaccination process, political processes, and intention to be vaccinated. Priority group: attitude and intention to be vaccinated. Trust
(MacEw an et al., 2022)	US	Qualitative (open comments)	Emergency medical service profession al	To examine the perspectives about acceptance of and hesitancy toward COVID-19 vaccines.	Unvaccinated individuals expressed concerns over the research and development of the COVID-19 vaccines.
(Mahapat ra et al., 2021)	India	Mixed methods (e-survey and semi- structured interview)	HCWs	To assess adverse events occurring among HCWs post- COVID-19 vaccination	Themes: vaccine adverse effects, fear and hesitancy for vaccines, and vaccine acceptance
(Rice et al., 2022)	Chad	Mixed methods (cross- sectional and open questions)	HCWs	To explore COVID-19 vaccine hesitancy responses among healthcare workers in urban Chad	Themes: education, trust, clinical concerns, and misinformation and false beliefs.
(Gogoi et al., 2022)	UK	Qualitative (Interviews and focus group)	HCWs	To explore the attitudes on the COVID-19 vaccine	Factors influencing vaccine acceptance include: knowledge of vaccine; risk perception; positive attitude towards other vaccines; social influences; and considerations about the future. Barriers to vaccine acceptance were low trust in the vaccine and historical (mistrust), inadequate communication, and inequities in delivery and access.
(Woodhe ad et al., 2021)	UK	Qualitative (semi- structured interviews)	HCWs	To better understand lower uptake among racial and ethnic minority HCWs to inform initiatives to enhance uptake.	Themes: weighing up risks of harm against potential benefits to self and others. Sub-themes included fear of harm, moral/ethical objections, potential benefits to self and others, information and misinformation, and institutional or workplace pressure.
(Yoon et al., 2022)	Singapor e	Qualitative (semi- structured interviews)	HCWs	To explore multifactorial influences underpinning a decision on vaccination and suggestions for	Decisions to accept vaccines were underpinned by a desire to protect patients primarily driven by a sense of professional integrity, collective responsibility to protect others, confidence in health authorities, and a desire to return to a pre-pandemic way of life. Hesitancy themes; concerns safety

Author and year	Country	Types of study	Population HCW	Objectives	Attitude on vaccine
				decision support to improve vaccine uptake among HCWs in the early phase of vaccination rollout.	and efficacy, inadequate information, and social media influence.
(Manby et al., 2022)	UK	Qualitative (semi- structured interviews)	HCWs	To explore HCWs' perceptions and attitudes towards vaccines and the COVID-19 vaccination program in the UK	Uncertainty about the long-term safety of vaccines, efficacy against mutant strains, and the spread of misinformation online. HCWs felt that the government's decisions on vaccine. The rollout had not been supported by evidence-based science.

References

- Aci, O. S., Kackin, O., Karaaslan, S., & Ciydem, E. (2022). Qualitative examination of the attitudes of healthcare workers in Turkey regarding COVID-19 vaccines. *International Journal of Nursing Knowledge*, *33*(2), 136-146. https://doi.org/10.1111/2047-3095.12342
- Gogoi, M., Wobi, F., Qureshi, I., Al-Oraibi, A., Hassan, O., Chaloner, J., Nellums, L. B., & Pareek, M. (2022). "The vaccination is positive; I don't think it's the panacea": A qualitative study on COVID-19 vaccine attitudes among ethnically diverse healthcare workers in the United Kingdom. *PloS One*, *17*(9), e0273687. https://doi.org/10.1371/journal.pone.0273687
- Hulen, E., Rynerson, A. L., & Dobscha, S. K. (2022). Vaccine hesitancy among Veterans Affairs Health Care System employees. *Preventive Medicine Reports*, 26, 101702. https://doi.org/10.1016/j.pmedr.2022.101702
- MacEwan, S. R., Gaughan, A. A., Gregory, M. E., Rush, L. J., Powell, J. R., Kurth, J. D., Panchal, A. R., & McAlearney, A. S. (2022). An Opportunity to Understand Concerns about COVID-19 Vaccination: Perspectives from EMS Professionals. *Vaccines*, 10(3). https://doi.org/10.3390/vaccines10030380
- Mahapatra, S., Nagpal, R., Marya, C. M., Taneja, P., & Kataria, S. (2021). Adverse events occurring post-covid-19 vaccination among healthcare professionals A mixed method study. *Int Immunopharmacol*, 100, 108136. https://doi.org/10.1016/j.intimp.2021.108136
- Manby, L., Dowrick, A., Karia, A., Maio, L., Buck, C., Singleton, G., Lewis-Jackson, S., Uddin, I., Vanderslott, S., Martin, S., & Vindrola-Padros, C. (2022). Healthcare workers' perceptions and attitudes towards the UK's COVID-19 vaccination programme: a rapid qualitative appraisal. *BMJ Open*, *12*(2), e051775. https://doi.org/10.1136/bmjopen-2021-051775
- Rice, D. R., Balamo, A., Thierry, A.-R., Gueral, A., Fidele, D., Mateen, F. J., & Sakadi, F. (2022). COVID-19 vaccine acceptance and hesitancy in N'Djamena, Chad: A cross-sectional study of patients, community members, and healthcare workers. *PLOS Global Public Health*, 2(6), e0000608. https://doi.org/10.1371/journal.pgph.0000608
- Woodhead, C., Onwumere, J., Rhead, R., Bora-White, M., Chui, Z., Clifford, N., Connor, L., Gunasinghe, C., Harwood, H., Meriez, P., Mir, G., Jones Nielsen, J., Rafferty, A. M., Stanley, N., Peprah, D., & Hatch, S. L. (2021). Race, ethnicity and COVID-19 vaccination: a qualitative study of UK healthcare staff. *Ethnicity & Health*, 1-20. https://doi.org/10.1080/13557858.2021.1936464

- Yaseen, M. O., Saif, A., Khan, T. M., Yaseen, M., Saif, A., Bukhsh, A., Shahid, M. N., Alsenani, F., Tahir, H., Ming, L. C., Amin, M. U., Suleiman, A. K., Al-Worafi, Y. M., Baig, M. R., Saeed Imran, M., & Jaber, A. A. (2022). A qualitative insight into the perceptions and COVID-19 vaccine hesitancy among Pakistani pharmacists. *Human vaccines & immunotherapeutics*, *18*(1), 2031455. https://doi.org/10.1080/21645515.2022.2031455
- Yoon, S., Goh, H., Matchar, D., Sung, S. C., Lum, E., Lam, S. S. W., Low, J. G. H., Chua, T., Graves, N., & Ong, M. E. (2022). Multifactorial influences underpinning a decision on COVID-19 vaccination among healthcare workers: a qualitative analysis. *Human vaccines & immunotherapeutics*, 2085469. https://doi.org/10.1080/21645515.2022.2085469