

# **Impact of COVID-19 vaccination on risk perception of infection: results of a cross-sectional study on vaccinated people.**

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## **Introduction:**

Vaccination campaigns against COVID-19 had been accelerated to clearly reduce incidence, hospitalizations and deaths. High risk perception and perceived threat had played an important role on public attitudes toward vaccination and protective countermeasures acting as motivational factors to perform behaviors that facilitated disease prevention.

To explore COVID-19 vaccination influence on people risk perception in different contexts and adherence to public health preventive measures, we conducted a cross-sectional study on vaccinated people (18-80 years old).

## **Materials and Methods:**

Participants, randomly selected, were recruited during the vaccination campaign in a vaccination Hub of Cosenza, Calabria Region, Italy, at the end of the second wave of COVID-19 pandemic (Jul-Aug 2021).

After univariate analysis, a multivariable logistic regression model was built to calculate odds ratios (OR) and 95% confidence intervals (95% CI) comparing risk perception and preventive measures confidence pre vs. post vaccination.

## **Results:**

Globally 625 participants provided the consent to participate and fully responded to the questionnaire; 51.4% of them were women, mean age 40.5 years (SD +/- 15.36). Infection risk perception and health-protective measures adherence significantly decreased after the vaccination for all examined measures even if a significant gender gap was present; women were always more worried and respectful than men. More prudent participants had a significantly higher mean age. Most participants (64.2%) believe that social distancing was yet necessary after immunization and about half of them believe that also the use of masks was yet necessary. Results of multivariable logistic regression analysis confirmed that risk perception decreases after vaccination in different contexts: workplace (0.65; 95% CI 0.44-0.94); sport activities (0.60; 95% CI 0.39-0.95); bars and restaurants (0.51; 95% CI 0.33-0.80); means of transport (0.32; 95% CI 0.19-0.50) as well as handwashing practice (2.23 95% CI 1.20-4.12).

## **Conclusion:**

The current research shows that vaccination against COVID-19 significantly decreases self-perceived risk and adherence to preventive measures. Public Health communication strategies could underline that COVID-19 vaccination is indispensable but not sufficient to protect the World against this devastating catastrophe.