Assessment of COVID-19 vaccine literacy among cancer patients: A cross sectional Tunisian study

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Background:
The context of the COVID-19 pandemic, Vaccine literacy (VL) is considered as an important determinant of vaccine hesitancy and uptake. Cancer patients constitute a target group for COVID-19 vaccination. Thus, we aimed in this study to assess COVID-19 VL among cancer patients in Tunisia.

Methods:
A cross sectional study was conducted, during the month of February 2021, in the Salah Azeiez institute of cancer including all inpatients aged ≥18 years. A standardized VL scale was used, composed of two dimensions: functional VL and interactive critical VL, using a four point Likert scale. A global score was calculated for each scale (ranging from 1 to 4); A cutoff of 2.5 was defined according to the literature. The students’ t and Anova tests were used for comparison of VL mean scores according to the studied characteristics. A p value <0.05 was considered as statistically significant.

Results:
A total of 200 patients were enrolled in this study with a mean age of 54.4±12.7 years. A low VL score (≤ 2.5) was observed among 27.5% and 81.0% participants for functional and interactive critical scales respectively. Higher functional VL score was associated with a higher educational level (3.7±0.5 among individuals with a university degree level vs 2.5±1.2 among illiterate, p <0.001). Interactive critical VL significantly increased with educational level (p <0.001) and was significantly higher among healthcare workers (2.5±1.3 vs 1.7±0.9, p <0.001), those who accepted to get the COVID-19 vaccine (2.0±0.9 vs 1.6±0.8, p = 0.002), who did not believe that vaccines are unsafe (1.9±0.9 vs 1.4±0.7, p <0.001) and that there is no need to be vaccinated since natural immunity exists (2.1±1.0 vs 1.7±0.8, p = 0.016).

Conclusions:
This study reported low acceptance proportions of influenza and COVID-19 vaccines and that false beliefs constitute a threat to vaccine acceptance. Healthcare professionals should educate and encourage cancer patients to be vaccinated, especially against COVID-19, influenza and pneumococcal vaccines, were found in this study.
Conclusions:
Vaccine literacy among cancer patients included in this study is weak. Effective communication strategies about COVID-19 vaccination should build VL and consider the level of patient’s health literacy to redress vaccine hesitancy and uptake.

Key messages:
- This study showed a low interactive-critical vaccine literacy score.
- Communication strategies in vaccination campaigns should be aligned with people’s vaccine literacy.

Vaccination against SARS-CoV-2 is the most effective way to stop the pandemic and to avoid its related deaths. COVID-19 vaccine efficacy and safety (73.8% vs 38.5%, p < 0.001) and believing that health authorities will not be able to vaccinate the majority of the population (71.2% vs 18.4% for COVID-19 vaccine and 65.6% vs 30.3% for SARS-CoV-2 vaccination, p < 0.001) were correlated with vaccine hesitancy.

Vaccine hesitancy was associated with lower interactive vaccine literacy score (1.6 vs 1.9, p < 0.001). When asked to rate how likely they were to receive the COVID-19 vaccine, 61.6% of patients responded that they would not receive the vaccine.

Vaccine hesitancy, represent now a major hurdle to achieve COVID-19 vaccination should build VL and consider the level of patient’s health literacy to redress vaccine hesitancy and uptake.

Effective communication strategies about COVID-19 vaccination should build VL and consider the level of patient’s health literacy to redress vaccine hesitancy and uptake.