LETTER

Vaccine hesitancy and health literacy

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Health literacy is defined as "the degree to which individuals have the capacity to obtain, process, and understand basic health information and services needed to make appropriate health decisions."¹ It affects a person's ability to access and use health care, to interact with providers, and to care for himself/herself and his/her children. In particular, adults with low health literacy skills are – among other obstacles to improving health - less likely to use preventive services.² Limited or insufficient literacy is associated with reduced adoption of protective behaviors such as immunization, related to the complex information and the multiple steps involved in the successful adoption of vaccination.³

Among the three vaccine hesitancy determinants, confidence, complacency and convenience, the last is concerned when, among other factors, ability to understand (i.e. language and health literacy) can influence vaccines uptake.⁴ Low health literacy skills may also affect communication: to address vaccine hesitancy, the use of Internet and social media is often recommended but limited by the difficulties in attracting vaccinehesitant individuals, by the multiple conflicting information on the web and by the exclusion of individuals without Internet access or with low literacy levels.

A study of the determinants of vaccination refusal⁵ showed a significant influence of the education - including University Degree - on vaccine acceptance: non-vaccinator families had a higher education level, in particular among women. Results also showed that many of them were health operators, which is unsurprising, considering the quite low vaccination coverage rates among health care workers.⁶ It was assumed that the informative demands of parents grow proportionally to their level of education and this therefore solicits a proportional ability of answer from the operators. However, general education not necessarily – although not very frequently - matches with health literacy: "educated" is somebody who has gone through some form of supposedly rigorous instruction; "literate" is who knows how to obtain, read, understand and manage specific information, needed to make health decisions.

Hak et al.⁷ reported similar results: among the main factors of a negative attitude to comply with vaccinations there were a high education of the parent and being a health care worker. Veldwijk J et al.⁸ published about health literacy and parents' preferences for rotavirus vaccination: while all respondents were willing to vaccinate against rotavirus when the vaccine was offered as part of the National Immunization Program,



Since parents today are asked to exert autonomy and to make well-considered decisions with respect to their children's health, successful communication should take into account health literacy and psychological empowerment. Health authorities should promote parental empowerment as a process through which parents gain control and responsibility over the health decisions they make for their children, in particular regarding their immunization schedule.9 Incidentally, the upcoming Italy's National Vaccination Plan¹⁰ includes the need to promote people's empowerment through new communication strategies and monitoring of the knowledge, behavior and opinion of the public, in order to tailor messages based on the evidence of the requests. It also anticipate the need of a dialog with the population (via classical and new tools, including social media) and the monitoring of the anti-vaccination sentiment, in order to reply and provide the population - in particular parents end elderly - with specific information. It also support teaching vaccinology in the Degree and in CME courses, and increasing communication skills of health operators.

However, attention should also be drawn to the need for measuring collective literacy skill levels, possibly adopting consequent well-conceived interventions and the implementation of programs to increase learner's skill levels and improve the outcome of knowledge, thus facilitating the work of health operators. Practical limitations in the use of individual health literacy measures exist, including time constraints, operator involvement, non-availability of vaccinees, lack of proper tools. Therefore it may be advisable that investigators measure and report literacy skills when they study vaccination decision behavior. In fact health literacy — i.e., enabling patients to understand and to act in their own interest — seems to remain marginalized, while it should be better evaluated and considered when planning strategies to oppose vaccine hesitancy or implementing new vaccination programs.

Very few publications are available about "vaccine literacy:" its advocacy can be built and reinforced on the idea of health literacy¹¹: it should not be considered simply knowledge about vaccines, but also developing a system with decreased complexity to communicate and offer vaccines. Different multicomponent strategies have been proposed for addressing



vaccine hesitancy¹²: many efforts are concentrated on opposing anti-vaccination groups, increasing confidence, motivating the complacent individuals, removing barriers for those for whom vaccination is inconvenient, define innovative communication strategies. Yet, obstacles to vaccination might be overcome by improving health education, especially when targeted not only at parents and adult population, but also at students, starting from primary and secondary schools, as recently suggested.¹³

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