ECRONICON OPEN ACCESS

EC ENDOCRINOLOGY AND METABOLIC RESEARCH

Research Article

The Importance of Health Communication and Nursing Education in the Vaccine Field: A Descriptive Study

Vitale Elsa[1]*, Della Pietà Cosimo[2], Gualano Attilio[3], Priore Antonella[4] and Germini Francesco[2]

[1]*Department of Mental Health, Local Health Authority Bari, Italy*

[2]*Manager of Health Professions, Local Health Authority Bari, Italy*

[3]*Nurse Coordinator of Urology Ward, SS. Anunziata Hospital, Local Health Authority Taranto, Italy*

[4]*Nursing Student at the University of Bari, Italy*

***Corresponding Author:** Vitale Elsa, Department of Mental Health, Local Health Authority Bari, Italy.

Received: October 20, 2020; **Published:** November 07, 2020

Abstract

The present study aimed to quantify parents' perceptions on vaccination issue. The quantitative survey was carried out through the distribution of an "ad hoc" questionnaire designed anonymously, created with Google Forms, administered online through social media and aimed at subjects with underage children who must undergo vaccination sessions. In the period from 23 March 2020 to 13 April 2020. The results demonstrated a substantially favorable opinion on the vaccination issues taken as a whole. In the vaccination field, the ideal moment in which to establish a good relationship between the nurse - educator and the parent is the pre - vaccination interview, in which the family is free to express their doubts and need to receive more information that can clarify non-specific topics well understood.

Keywords: *Health Communication; Nursing Education; Vaccination*

Introduction

In Italy the practice of vaccination spread above all thanks to Luigi Sacco, who since 1799 promoted the widespread use of the anti-plow in Milan, Bologna and Florence [1].

The spread of smallpox vaccination was one of the greatest medical innovations of all time, so much so that the disease was declared eradicated by the WHO in 1980 [2].

From the beginning there have always been two different currents of thought, one in favor of inoculation, especially for economic reasons, given that a larger population thanks to lower mortality rates, would have led to a greater workforce with the consequent positive effects on well-being of the whole society; the other to the detriment of vaccination, not recognizing the severity of the pathology to be autoimmunized, remaining doubtful about the efficacy and safety of the vaccine [3]. Furthermore, still in Italy, the cases of deaths following inoculation ended up disturbing the population and, at the same time, the compulsion to vaccinate through the law was defined as an unacceptable invasion of personal freedom (another reason for opposition). It was this last aspect that led to the birth of the first antivaccinist movements organized in response to the Vaccination Acts, a series of rules promulgated by the British government between 1840 and 1871, with the aim of making the practice of vaccination free, universal and ultimately mandatory. In 1867, in reaction to these laws, the Anti-compulsory Vaccination League was founded, with the aim of countering the imposition of vaccination perpetuated by the state [4]. At the beginning of the twentieth century, being against vaccination represented a response to two interrelated questions: on the one

hand, the proliferation of organic products for the prevention and treatment of diseases, on the other the fear that experts could claim to be more qualified. of parents in judging the actions to be taken to ensure the well-being of children [5].

This situation remained fairly stable until the seventies, during which the media spread the news of cases in which side effects occurred following the inoculations. These trends negatively impacted the number of children vaccinated. Today, however, in a context of hyper-information and the absence of the immediate threat of contracting the disease, parents are increasingly interested in learning more about the dangers of immunizing their children [6].

By vaccination calendar we mean the chronological sequence with which the vaccinations of children, adolescents, adults and the elderly must be carried out after birth. The calendar is constantly updated taking into account scientific knowledge, the epidemiological situation of the various diseases and new vaccine preparations made available by the industry. The calendar in force in Italy was defined by the National Vaccine Prevention Plan 2017 - 2019 which defined the strategies for achieving the objectives in the National Plan and the adaptation of vaccination strategies to the recommendations of the World Health Organization. In addition to mandatory vaccinations, the Ministry of Health recommends the execution of other vaccinations (so-called strongly recommended) for the prevention of Meningitis B, Meningitis C, Rotavirus infection, Pneumococcal infection [7]. In order to promote vaccination, health education is a communication activity aimed at protecting health, eliminating risk factors and preventing disease, aimed at individuals as well as the entire population. According to the WHO: "health education is intended to help the population acquire health through their own behavior and efforts". The present study aimed to quantify parents' perceptions on vaccination issue.

Materials and Methods

The quantitative survey was carried out through the distribution of an "ad hoc" questionnaire designed anonymously, created with Google Forms, administered online through social media and aimed at subjects with underage children who must undergo vaccination sessions. In the period from 23 March 2020 to 13 April 2020.

Results

The questionnaire

The questionnaire consists of 28 questions: the first 4 questions with multiple closed answers regarding the socio-demographic characteristics of the parents and the main section consisting of 24 items are divided into 5 macro-sections with their respective main topics:

- Socio-demographic characteristics of the parent;
- Vaccination claims;
- Search for the information and sources used;
- Decisions on future vaccinations;
- Evaluation of the information received from the health workers of the vaccination centers and willingness on the part of parents to receive information from a nursing counseling service.

For each question a Likert scale was associated with value 1 as "strongly disagree" and 5 as "strongly agree".

Items	Frequencies (n; %)
Sex	
Female	25 (20.30%)
Male	98 (79.70%)
Age	
< 18 years	3 (2.40%)
19 - 25 years	13 (10.60%)
26 - 35 years	15 (12.20%)
36 - 50 years	69 (56.10%)
> 51 years	23 (18.70%)
Instruction levels	
Elementary and lower secondary school	19 (15.40%)
Diploma	42 (34.10%)
Graduation	62 (50.40%)
Profession	
Student	7 (5.70%)
Unemployed	3 (2.40%)
Housewife	28 (22.80%)
Employee	55 (44.70%)
Self employed	22 (17.90%)

Table 1: *Demographics of responding parents (n = 175).*

Items	Totally Disagree (n; %)	Disagree (n; %)	Partially Agree (n; %)	Agree (n; %)	Totally Agree (n; %)
Mass vaccinations carried out in the past have contributed decisively to the disappearance of some diseases (e.g. poliomyelitis, diphtheria, smallpox)	2 (1.60%)	2 (1.60%)	9 (7.30%)	18 (14.60%)	92 (74.80%)
It is important to vaccinate children because the diseases they prevent can be very serious	1 (0.80%)	0 (0%)	3 (2.40%)	28 (22.80%)	91 (74%)
I believe vaccinations today are basically safe	1 (0.80%)	3 (2.40%)	13 (10.60%)	55 (44.70%)	51 (41.50%)

By following a healthy lifestyle, it is possible to avoid contracting diseases without any need to vaccinate the child	79 (64.20%)	28 (22.80%)	11 (8.90%)	3 (2.40%)	2 (1.60%)
Sometimes it is more dangerous to get vaccinated than to contract the disease you want to protect yourself from with the vaccine	63 (51.20%)	30 (24.40%)	20 (16.30%)	5 (4.10%)	5 (4.10%)
Vaccines overload our immune system; therefore it is better to contract the disease naturally rather than get vaccinated	62 (50.40%)	37 (30.10%)	3 (12.20%)	8 (6.50%)	1 (0.80%)
Nowadays it no longer makes sense to get vaccinated since the diseases against which we would get protection with the vaccine actually no longer exist	71 (57.70%)	30 (24.40%)	14 (11.40%)	5 (4.10%)	3 (2.40%)
The first vaccinations are carried out on too young children	44 (35.80%)	28 (22.80%)	24 (19.50%)	13 (10.60%)	14 (11.40%)
Too many vaccinations are carried out in a single vaccination session	29 (23.60%)	27 (22%)	32 (26%)	19 (15.40%)	16 (13%)
Vaccines contain dangerous ingredients and additives	35 (28.50%)	33 (26.80%)	38 (30.90%)	10 (8.10%)	7 (5.70%)
Serious adverse reactions to vaccines are very rare	8 (6.50%)	17 (13.80%)	32 (26%)	37 (30.10%)	29 (23.60%)
I directly know people who have experienced post-vaccination adverse events	75 (61%)	14 (11.40%)	10 (8.10%)	14 (11.40%)	10 (8.10%)
I use the internet to inform me about health issues	16 (13%)	19 (15.40%)	4 (27.60%)	14 (11.40%)	40 (32.50%)
I have asked or searched for information in the vaccination field	20 (16.30%)	14 (11.40%)	27 (22%)	18 (14.60%)	44 (35.80%)
I believe that the vaccination clinic service is adequate for my needs	4 (3.20%)	10 (8.10%)	42 (34.40%)	42 (34.40%)	37 (30.10%)
I have the impression that health professionals provide information only on the benefits of vaccinations and not on the risks associated with them	21 (17.10%)	19 (15.40%)	41 (33.30%)	27 (22%)	15 (12.20%)
I believe that I have received sufficient information from the staff of the vaccination center regarding the vaccination carried out	13 (10.60%)	21 (17.10%)	42 (34%)	30 (24.40%)	17 (13.80%)
I would like to receive further information through a nursing counseling service	13 (10.60%)	4 (3.20%)	14 (11.40%)	35 (28.50%)	57 (46.30%)

Table 2: *Questionnaire of parental perception on the topic of vaccinations.*

Discussion and Implications for Clinical Practice and Conclusion

This survey aimed to investigate parents' knowledge and mental attitude regarding vaccinations, trying to identify any factors that would lead to an anti-vaccination attitude and, in general, an anti-scientific approach towards vaccinations.

The purpose of the study was to evaluate and understand on which topics the parents proved to be "negative/against or ill-informed", in such a way as to guide the inforsmation from the nurse more effectively and on which topics to clarify, given health education among the essential functions of the nurse towards the subject, the family and the community.

The results demonstrated a substantially favorable opinion on the vaccination issues taken as a whole. The substantially positive attitude is also confirmed by the answers to the question with which they asked to imagine they have never been vaccinated and consequently choose which vaccinations they would choose to undergo based on their knowledge and personal preferences. Most of the proposed vaccines reach a good consensus of more than 50%, the reasons that lead to prefer certain vaccines rather than others are undoubtedly heterogeneous: surely we choose to protect ourselves against the diseases that scare us the most, such as polio and tetanus or against those we have heard the most about, such as hepatitis B or meningococcal meningitis.

The bottom-up influenza vaccine achieves a low result, preferred by only 22.8% of parents: this may be due both to the erroneous perception of its poor efficacy, due to the existence of numerous confused para-influenza syndromes often due to influenza and against which the aforementioned vaccine does not confer protection, both from the incorrect management of information on the case of H1N1 influenza which has further undermined confidence in the usefulness of vaccination.

The results show that, if on the one hand there is a high awareness of the protective value of vaccines (and therefore indirectly we are aware of the danger of the diseases that are prevented with these aids), on the other there is a perception of the risk linked to the vaccine itself, which according to the interviewees could manifest its harmful effects after its administration. An interesting variable is represented by the information sources used by parents to obtain information on vaccinations.

We find ourselves in the presence of parents who are increasingly active and independent in the search for information, but at the same time potentially disoriented by the overloading information typical of the internet age and probably dissatisfied with the information received from institutional channels: so they turn to different sources, documenting themselves personally with all the resulting risks. The parent, even if more active and demanding, needs to be listened to and is likely to be willing to dialogue: this must be matched by a quality response from the healthcare world, as well as transparent, of a non-paternalistic approach, which provides an objective framework complete and independent regarding vaccinations, without fear of admitting the existence of any dark areas in the current state of knowledge [8]. We cannot ignore the fact that the debate on vaccines is now very fervent even on the web and probably will be more and more so, therefore it is essential that Public Health and scientific institutions in general take action to be present online by exploiting all the available possibilities [9]. The study shows that the most used information channel remains that of doctors and health professionals in the sector, therefore, we must focus a lot on the pre-vaccination interview, undoubtedly one of the best moments to act, during which it is possible to establish an important and often overlooked relationship of trust with the user. Parents' choices regarding children's vaccinations could be adversely affected if there is low trust in health institutions and healthcare professionals, as well as by the spread of anecdotal and negative news about vaccines in the media [10].

The survey also shows that parents are not fully satisfied with the information received from health professionals. The operator of the sector is often too focused on the technical aspects of the issues he faces, neglecting the fact that he is faced with an interlocutor who, although he may be interested in dialogue and listening to our arguments, in most cases already has an his opinion. If you set up an approach that involves educating the interlocutor through a long list of scientific demonstrations in support of a given opinion, we would probably get poor results, indeed sometimes the effect would be counterproductive. It must be admitted that our interlocutor can be the bearer

of a cognitive universe that is different and very distant from ours: the primary task of the nurse will be the construction of an empathic relationship with the other, the emotional taking charge of his or her experience, thus trying to see the world from his point of view, trying to fully understand the deep reasons for his views. In the light of these considerations, it is therefore no longer conceivable to think of vaccination policies that do not include, on the one hand, wide-ranging communication strategies, and on the other, specific training of vaccinators, pediatricians and nurses and other operators in vaccination counseling, intended in its overall meaning as a pivotal tool for creating a medicine that is more patient-oriented than disease-oriented and that can aim at the personal and social empowerment of the family.

Health education is a fundamental function and primary responsibility of the nursing profession; all assistance must be aimed at promoting, maintaining and recovering health, preventing disease and helping people adapt to the after-effects of the disease [11].

Many nursing activities are carried out through the education of the patient, in his role as educator, the nurse is called to focus on the educational needs of the communities and to educate the patients and their families according to their specific needs [12].

Health education is essential in nursing because it affects the ability of individuals and families to carry out important self-care activities. Although people have the right to decide whether to learn or not, the nurse has a responsibility to present them with information that motivates them to recognize the need for learning [13].

Learning can be defined as the acquisition of knowledge, attitudes and skills, education is defined as the help that is offered to a person to learn, this indicates that the process of education - learning is an active process, in what requires the participation of those who educate and those who learn, aimed at achieving the desired result, that is, a change in behavior. The nurse educator is not the one who transmits knowledge to the patient, but the one who fosters learning, the interaction between the person and the nurse who tries to satisfy the learning needs can be formal or informal, depending on the method and educational techniques.

Learning can be influenced by factors such as the availability of the learner, the learning environment and the educational techniques adopted [14]. For adults, availability depends on culture, personal values, physical and emotional state and previous learning experiences, the most suitable time to educate an adult is when the contents and skills that are to be transmitted are congruent with the tasks to be performed. Sometimes, people do not accept health education because in conflict with the values mediated by their culture, when the nurse does not know the cultural and personal values of the patient who has to educate, misunderstandings may arise, there may be a lack of collaboration and health outcomes can be negative. Learning can be optimized by reducing any disturbing factors, for example the room temperature, lighting, noise level and other environmental conditions should be appropriate to the situation [15]. The choice for education should respect the needs of the person, schedule a session at a time when the client is tired, worried does not facilitate learning, techniques and educational methods improve learning if they are suitable for the person's needs. Numerous techniques are available including lectures, group education, demonstration and practice, teaching aids, motivational interview [16]. In the vaccination field, the ideal moment in which to establish a good relationship between the nurse - educator and the parent is the pre - vaccination interview, in which the family is free to express their doubts and need to receive more information that can clarify non-specific topics well understood [17].

Bibliography

1. Zampieri F., *et al*. "Iconography and Wax Models in Italian Early Smallpox Vaccination". *Medicine Studies* 2 (2011): 213-227.

2. Belongia EA and Naleway AL. "Smallpox vaccine: the good, the bad, and the ugly". *Clinical Medicine and Research* 1.2 (2003): 87-92.

3. Lane J and Goldstein J. "Evaluation of 21st-century risks of smallpox vaccination and policy options". *Annals of Internal Medicine* 138.6 (2003): 488-493.

4. Smith TC. "Vaccine Rejection and Hesitancy: A Review and Call to Action". *Open Forum Infectious Diseases* 4.3 (2017): ofx146.

5. Hussain A., *et al*. "The Anti-vaccination Movement: A Regression in Modern Medicine". *Cureus* 10.7 (2018): e2919.

6. Dubé E., *et al*. "Vaccine hesitancy: an overview". *Human Vaccines and Immunotherapeutics* 9.8 (2013): 1763-1773.

7. Durando Paolo., *et al*. "Tackling Biological Risk in the Workplace: Updates and Prospects Regarding Vaccinations for Subjects at Risk of Occupational Exposure in Italy (2019): 141.

8. Working Group within the National Conference "Medice cura te ipsum". The Pisas' Paper of Vaccinations in Healthcare Professionals. Gimpios 7 (2017): 155-157.

9. Smith LE., *et al*. "A systematic review of factors affecting vaccine uptake in young children". *Vaccine* 35.45 (2017): 6059-6069.

10. Odone A., *et al*. "Effectiveness of interventions that apply new media to improve vaccine uptake and vaccine coverage: a systematic review". *Human Vaccines and Immunotherapeutics* 11.1 (2015): 72-82.

11. Whitehead Dean. "Health promoting hospitals: the role and function of nursing". *Journal of clinical Nursing* 14.1 (2005): 20-27.

12. Vitale E. "Clinical teaching models for nursing practice: a review of literature". *Prof Inferm* 67.2 (2014): 117-125.

13. Fowler DC and Alden KR. "Enhancing patient safety in nursing education through patient simulation". Patient safety and quality: An evidence-based handbook for nurses". *Agency for Healthcare Research and Quality (US)* (2008).

14. Bozzette SA., *et al*. "A model for smallpox-vaccination policy". *The New England Journal of Medicine* 348 (2003): 416-425.

15. Xiong L., *et al*. "Impact of Indoor Physical Environment on Learning Efficiency in Different Types of Tasks: A 3 × 4 × 3 Full Factorial Design Analysis". *International Journal of Environmental Research and Public Health* 15.6 (2018): 1256.

16. Centers for Disease Control and Prevention, author. "Recommendations for using smallpox vaccine in a pre-event vaccination program". *Morbidity and Mortality Weekly Report* 52 (2003): 1-16.

17. Hendrix KS., *et al*. "Ethics and Childhood Vaccination Policy in the United States". *American Journal of Public Health* 106.2 (2016): 273-278.

Volume 5 Issue 12 December 2020