DOCTORS' AND PARENTS' PERSPECTIVES ON COMMUNICATION REGARDING HPV VACCINATION IN BULGARIA

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Executive Summary

Decisions for HPV vaccination depends on the effective dialog between provider and patient, as well as on social network and family support. In Bulgaria, a country without an organized program for cervical screening and vaccination, the topic of HPV vaccination has recently been receiving increased public recognition and local meanings of vaccination are emerging.

Methods: Semi-structured interviews with 11 women (parents of girls approaching age for vaccination), 15 health care providers and 3 focus groups conducted in 2011 in Bulgaria, were analyzed through thematic analysis.

Findings: Our analysis addresses providers' perspectives on communication with parents, and parents' perspectives on communication with providers in relation to vaccination. We illustrate how parents describe their dialog with different specialists and how their acceptance or resistance to the vaccine depends on this communication. Parents identify providers' contradictory constructions of the vaccine and interpret them as confusing and negatively affecting their own decision making process. In providers' narratives we address how they describe their own uncertainties about the vaccine and how these are reflected in their dialog with parents.

Discussion: Professionals' constructions of the vaccine, their sharing of personal opinions and communicating about contradictory issues are pivotal for parents' assessment of the quality of their communication with providers about HPV vaccination. Among health providers, nuanced attitudes in the dialog with parents are informed by their specialty, position, perceptions of vaccinations and personal choices regarding vaccination of their own children.

Introduction

The vaccine which protects against infection with the Human Papillomavirus (HPV) is a controversial topic in current debates about health prevention and vaccination policies worldwide. It has recently been introduced to the pharmaceutical market and questions about the efficacy and effectiveness of this new product have been raising debates both in the public sphere as well as in professional circles. On the one hand, the vaccine has been celebrated as a "revolutionary discovery" which for the first time in history prevents against a cancer that is the second most frequent cause of cancer-related deaths among women worldwide ¹. However, the HPV vaccine appeared in an international context in which anti-vaccination movements are questioning the necessity and safety of many of the vaccines used for prevention of diseases.

In this controversial context, two types of vaccines, which aim to protect against HPV infections, have recently been licensed and made available on the pharmaceutical market. Specifically, Gardasil/Silgard (Merck & Co.) and Cervarix (GlaxoSmithKline) prevent against infections with two types of HPV virus (HPV 16 and 18²), which are considered to be the most oncogenic. These two strains of the virus (16,18) are implicated in the development of 75% of cervical cancers, and between 40%-70% of other genital, and head and neck cancers in men and women (American Academy of Pediatrics 2012; Barroso and Wilkin 2011). One of them (Gardasil/Silgard) aims to protect also against two other types of the virus (HPV 6 and 11) that cause other frequent, though non-malignant, infections such as genital wards in men and women.

The main target population for the vaccine so far has been preadolescent girls. Since the HPV virus is most widely transmitted through sexual contact and can be acquired from the first

¹ The infection with the HPV virus is sexually transmitted and it is very common. The existing studies reveal that at least 70% of sexually active individuals become infected by the HPV virus at least once in their lifetime, although 90% of them spontaneously clear it in the first year (Lutringer-Magnin et al. 2011).

² HPV 16 and 18 are found to be the most frequent causes of pre-cancer cervical dysplasia (CIN II+). They account for 75% of cervical cancers (Lutringer-Magnin et al. 2011).

sexual encounter, all guidelines recommend vaccination before the start of sexual activity (girls at age between 9 and 14 year of age), with catch-up programs up to age 26. In regard to sexually active women over the age of 25, it is recommended that HPV vaccination should be considered on an individual basis since older women can also benefit from it. However, the effectiveness of vaccination of older women is expected to be limited in reducing the levels of cervical cancer-related mortality (European Centre for Disease Prevention and Control 2008).

More recently, in 2011, the vaccine was recommended for routine use for boys aged 11-21 years, and possible use for men 22-26 years of age (CDC 2011). This recommendation is based on the increasing evidence for the role of HPV in other cancers, including in men (American Academy of Pediatrics 2012; Barroso and Wilkin 2011).

After being licensed, the HPV vaccine was included in the national immunization schedules of many countries, including the US, European countries, Australia, Korea, Taiwan and others. In accordance with the general concerns about the newness of this pharmaceutical product and the lack of information on its long term effectiveness, the vaccine obtains contradictory meanings in various socio-cultural contexts. Apart from the medical side, these controversies are also embedded in local cultural meanings which the vaccine brings up such as sexuality, reproductive health, responsibility for health, communication about sexual issues and others.

For example in 2007 health authorities in France decided to implement HPV vaccination for all girls at age of 14 (Lutringer-Magnin et al. 2011; Stöckl 2010). However, the implementation of the vaccine happened in a situation of increased "vaccination anxieties" provoked by problems with other vaccines reported in the media. The importance of the public attitudes in specific context is underscored by Lutringer-Magnin et al. (2011) – these attitudes

depend on its acceptability among physicians, parents and young women, its effects on adolescents' attitudes towards sexually transmitted infections (STIs), and its impact on cervical cancer screening.

In addition to public and medical experts' opinions, cultural meanings regarding sexuality and STIs also shape the ways the vaccine is constructed in certain socio-cultural contexts. For example in some Asian countries (Korea, Thailand, Taiwan and Malaysia)³ less than 4% of eligible girls and women have been vaccinated. Apart from the financial reasons the "resistance" towards the vaccine has been provoked also by cultural "barriers" which divert doctors' and parents' discussions away from the sexual transmission of HPV infections (Chow et al. 2010).

In Bulgaria, a country in which chaotic and poorly organized reforms in health care have been going on for more than two decades, the topic of HPV vaccination has recently been receiving public attention and local meanings of vaccination are emerging. Both vaccines Gardasil/Silgard and Cervarix were approved in the country in 2006 and 2007, respectively, but were not included in the regular immunization schedule until 2010. Currently, the vaccine is part of the recommended list for vaccination of girls 12 to 18 years old before first sexual contact, with a recommendation for catch-up until age 25. The vaccines are not covered by the National Health Insurance Fund and are prohibitively expensive. Very recently, in Bulgaria, the issue of mass vaccination of girls has been again put on the agenda. In July 2012, a national program for primary prevention of cervical cancer was approved by Parliament. It foresees reimbursement of costs for the cohort of 12 year old girls and is expected to be implemented by the end of the year. It will start as a non- mandatory school-based program.

³ In the literature it is often mentioned that so-called "developing countries" in Asia and Africa are most affected by the spread of HPV-related infections. In this part of the world the cervical cancer-related death rates among women are strikingly high compared to Europe and the USA (Tomljenovic and Shaw 2011).

The Role of Communication and Information in Constructing Attitudes Toward the HPV Vaccine

In this paper, we take a constructionist stance in analyzing how the socio-cultural context and prevailing "official" medical discourses about the HPV vaccine create its meaningful From this perspective medicines and pharmaceutical products ("materia representations. medica") are not just material objects with a certain chemical structure that has biological consequences for the human body but are considered as phenomena that have social lives (Whyte, Geest, and Hardon 2002; van der Geest and Whyte 1989). This life begins in the labs, goes through different stages as a commodity in the pharmaceutical industry, travels to different contexts and sometimes has an "after life" by healing and strengthening the human body (Etkin 2006). The socio-cultural context in which pharmacological products and technological advancements in medicine appear (in our case the HPV vaccine) shapes the social meanings attached to them. The social lives of the medical products have also an interpretative nature grounded in the social context that produces imageries and subjective constructions attached to them (Stevenson et al. 2000). These subjective interpretations are entwined, created and recreatedin the communication between different social actors about the pharmaceutical product and mold its social acceptance in the particular context (Williams, Gabe, and Davis 2008). The medicine is a metonymic extension of the doctor and the care s/he provides for the patient: "... the healing hand of the doctor reaches the patient through the prescription and the medicine..." (Geest 2010). As Geest (2010, 18) also points out medicines sometimes even play the role in the real communication between doctors and patients of tokens of concern or means of control and oppression.

Apart from the interplay between cultural context and meaningful representations in

which pharmaceutical products become culturally contextualized material objects both reflecting and highlighting social meanings and interpretations of the local societies, "material medica" is also one of the most personalized objects (Whyte, Geest, and Hardon 2002). It is a means of individualization localizing or preventing illness in a particular body but also constructing individual's health and illness in relational forms – with family, significant others, larger community, medical authorities etc. The localized social life of the pharmaceutical products becomes also part of the biological life of human body – "a substance with power to transform the body" and the relations of an individual with others (Whyte, Geest, and Hardon 2002).

From this perspective the HPV vaccine can be conceptualized as a *global pharmaceutical* that has multiple biographies in different *local* contexts. The newness of the vaccine, which appeared on the global pharmaceutical market in a situation of increased "vaccination anxieties", lack of "solid" evidence about its preventive effect, due to the short time period of implementation, as well as cultural barriers hindering the public representation of the vaccine as related to STIs, are some of the structural and cultural dimensions explaining the current controversial situation in which the vaccine takes its social life in different local contexts.

These controversies and contextual specificities construct the role of the local physicians as extremely important for "taming the uncertainties" (Lupton 1995) the vaccine provokes in individuals in different contexts. In particular, *physicians' recommendations* of the vaccine and the *communication with parents and young women at age* of vaccination are often mentioned in the literature as some of the most important preconditions shaping the public image and public attitudes towards the vaccine. The educational role of doctors is construed in the medical literature in the following way: If the doctors provide information about HPV-related infections and the availability of the vaccine, this would increase patients' awareness of the potential health

risks of the infections, and would reduce parents' anxieties about the alleged side effects of this new pharmacological product. Thus, possession of "expert knowledge" and communication skills has been viewed as shifting in a certain direction public attitudes towards HPV prevention. Thus, the key role of doctor's recommendations is understood in the light of the trust it provokes in parents as the "medicine" (in our case the HPV vaccine) can be anticipated also as a metonymic expression of physician's power to prevent and cure a disease.

The importance of communication between health providers and parents relates also to the unique characteristics of this particular vaccine. In the mainstream medical literature the vaccine is described as ensuring protection against HPV infections that cause cervical cancer, a disease that might develop decades after the original infection. As a result of the displacement of the potential disease onset into the far future, the literature often discusses the low perceived risk women have about the disease, and considers it as stemming from the women's lack of knowledge, or being unaware about the causes and consequences of HPV-related infections (Dempsey et al. 2009; Waller et al. 2011). Perceived risk and the women's "increased selfawareness" about the HPV-related infections has often been emphasized as important for the "acceptability" of the vaccine among women and parents, this being also important in the process of constructing the public image of the vaccine. There is a focus in the official medical discourse on the importance of informing women, increasing their awareness about the HPV infections and the ways to prevent them, educating young girls of about STIs as the health promotion strategies that would help in "implementing" the vaccine, while there is less attention to "contextualizing" this pharmaceutical product (Waller et al. 2007). Unlike implementation, the contextualization of the vaccine refers to social processes of meaning production since meanings attached to it and its efficacy can also prevent and heal a disease (Etkin 2006). The

contextualized nature of the HPV vaccine "acceptance" and the cultural construction of its efficacy have not often been problematized thus, turning the vaccine in the official medical discourse into a decontextualized phenomenon directed to abstract individuals whose "compliance" depends chiefly on their degree of knowledge of the "benefits" of this new pharmaceutical product.

From parents' perspective, there are several issues in their communication with doctors that are pinpointed in the existing literature as influencing the meanings attached to the vaccine. One of them concerns fears and beliefs that link the origin of the HPV infections to sexual behavior. According to the more conservative and religiously grounded interpretations the vaccine might give a false sense of protection against sexually transmitted diseases and foster "disinhibition" (Schuler et al. 2011). Some medical researchers remind us that the presentation of the vaccine as "a vaccine against sexually transmitted diseases" might have a negative effect on its acceptability in certain context. Lutringer-Magnin et al (2011) illustrate beliefs that "...informing adolescent girls about HPV vaccination implied an acceptance – and possibly encouragement – of premature sexual activity. Further, vaccination might be taken as inducing an unjustified feeling of safety regarding behaviors that increase the risk of STIs in general." Thus, in certain contexts concerns about the "sexual origin" of the HPV infections trigger processes of subversion of the meanings and change the social representations of the vaccine. In order to avoid issues of cultural acceptance and sensitivity, the construction of the vaccine in different contexts as a "vaccine against cervical cancer" at least partly strips it from reference to sexuality and STIs. This is the case for example in Italy where in Tafuri et al's study (2010) the doctors support the cancer-related representation of the vaccine instead of presenting it to parents and young girls as "a vaccine against an infectious disease".

Studies of parental attitudes most often suggest that parents would vaccinate their children if they are provided with enough and reliable information from health professional having particular specialty. Parents assess differently the roles of pediatricians, family physicians, and gynecologists giving their preferences to one or another specialty according to the health system and policies in different counties, their personal beliefs and contacts (Olshen et al. 2005; Tozzi et al. 2009). In Italy, for example, mothers identify gynecologists as the most reliable information provider, although a significant proportion of mothers identified also the general practitioners as an appropriate source of information. However, the most frequent actual providers of information on HPV immunization were pediatricians.

Some studies take into account the influence of significant others (parents and social networks) and the socio-cultural context of communication between the *physicians with young adolescent women* on the HPV vaccine. For example Romo et al's study (2011) reveals that not only trust in physicians, but also support from family and particularly the openness in communication about sexual health with the mother during mid-adolescence, mold the perceptions of the young women regarding this medical product. The close connections and good communication with mother reduces young women's embarrassment and anxiety in talking with doctors about these sensitive topics (Jones and Cook 2008; Roberts et al. 2010). This suggests that the social influence of significant others outside medical settings, their social support or the lack of such also frames the interaction between women and doctors in regard to the vaccine.

In recent years, we have conducted a number of studies addressing different aspects of current cervical cancer prevention and its outcomes in Bulgaria (Avramova 2005; Todorova et al. 2006; Todorova et al. 2009). Our study on psycho-social aspects of cervical cancer screening in the country revealed that the most important barriers that women face relate to doctors'

unwillingness to offer and perform preventive Pap smears, the "unpleasantness" of gynecological examinations and the insufficient information the women have regarding cervical cancer prevention (Avramova 2005). Other publications regarding cervical cancer prevention in Bulgaria underscore the determinants of inequalities in cervical cancer screening and prevention (Todorova et al. 2006; Todorova et al. 2009).

A recent paper by our team on healthcare professionals' discourses in regard to the HPV vaccine reveals the complex attitudes and nuanced opinions among Bulgarian health care providers. By focusing on such issues such as health professionals' attempts to normalize the risk of medical innovations related to HPV vaccination, the rising acclaims of the potential of the vaccine for eliminating disease, and prevailing uncertainty about its gendered dimensions, we describe the ongoing process and the controversies in the acceptance of the vaccine in Bulgaria as processes of "taming" the risk, mystery and perceived danger surrounding this pharmacological product (Todorova et al. 2012).

Aims and Methods

The aim of this paper is to explore how the social life of the vaccine develops in the context of the current Bulgarian society. In particular, we focus our analysis on *providers' and parents' perspectives on information and communication*. We discuss providers' perspectives on communication with parents, and parents' perspectives on communication with providers, significant others and on acquiring information in relation to HPV vaccination. Communication between doctors and parents builds up the social life of this medical product and also the meanings the HPV vaccine receives are grounded in the social context of the current Bulgarian society.

We will address several issues creating the social representations of the vaccine. The first one concerns the ways that parents and doctors construct health professionals' role in the dialog about the HPV vaccine, i.e. how they perceive their interaction. The second issue focuses on the way the "target population" for vaccination is constructed in the discourses of health professionals. The third issue is the influence of significant others and the influence of family support and social networks on the images and meanings women attach to the vaccine.

The empirical data on which the study is based are collected as part of a larger international project on "Psychosocial, Political and Gendered Dimensions of Preventive Technologies in Bulgaria and Romania: HPV Vaccine Implementation", carried out between October 2010 and March 2012. Ethical approval for the project's activities was obtained from the Bulgarian Psychology Society. Data include interviews with parents, health providers and key policy makers; public documents on national policies, publications in the media in regard to cervical cancer prevention, as well as documents from pharmaceutical companies regarding the HPV vaccine.

Semi-structured interviews with 11 women (young adults or parents of girls approaching age for vaccination), 15 health care providers and 3 focus groups with parents (15 women and 9 men) were conducted in 2011 in Sofia, Kurdghali and Plovdiv, and were thematically analyzed. The sample of the doctors includes 3 general practitioners, who are usually the first point of consultation and advice about women's health; 6 obstetricians/gynecologists, who are the key providers of women's health; or pediatricians (2), who play a key role as physicians for teenage girls and young women. All interviews and focus groups were transcribed verbatim and analyzed through thematic analysis (Braun and Clarke 2006). The software that was used for qualitative data analysis is Atlas.ti (v.7).

Results and Discussion

The Dialog Between the Patients and Doctors Regarding the HPV Vaccine: Health Professionals as "Knowledge Providers"

The interviews with health professionals reveal that the attitude of the doctors regarding the vaccine is prevailingly positive, though there are many ambivalent opinions as well as skepticism expressed by some. In the discourses on their role, pediatricians in particular, stress their key role to inform parents about it. Some of the doctors underline also that the fears and myths surrounding the vaccine and parents' anxieties about its effectiveness are mainly due to the *insufficient proactive approach* on behalf of many of their colleagues:

I think that the basic mistake that makes people withdraw from vaccines or not willing to accept them is not that they are against vaccines, but they are not informed. So, they have to be informed and we are obliged to inform them, it is mainly our mistake that we have not informed them what it is about. (Pediatrician, Sofia, woman)

The pediatricians describe themselves as the most active group in the promotion of the vaccine. The "mission to inform" parents is seen as their main responsibility, since they provide primary care for pre/adolescent girls. Such an active approach distinguishes them from the role of "passive advisers" emerging in the narratives of the other health professionals. Thus, in several of the interviews the doctors explain that they provide information about the vaccine only when mothers ask about it. This is particularly relevant for the general practitioners (GPs) and to some extent for the gynecologists; GPs for example rarely say that informing parents and young women as their responsibility.

If they do not communicate with other friends, neighbors etc., they still have access to the Internet, where most of the information is nonsense of course, but if there is something there that intrigues them, they could ask me; but for me to seek to actively contact them

in order to explain what is right and what is not, I wouldn't do it, because it is not worth it." (GP, Sofia, man)

The reluctance to provide information about the vaccine expressed by some of the health specialists is framed in the doctors' talk within *skepticism* about its effectiveness and real necessity and sometimes within overtly expressed concerns regarding its safety. Some of the interviewed health providers often mention the lack of "solid" evidence about the preventive effect of the vaccine in the long run and emphasize that it is just another commodity on the pharmaceutical market:

Currently, I see only the economic benefit for the companies which manufacture it and therefore I personally restrain from advising about such things. (Gynecologists, Sofia, woman)

On the other hand, fears that they could be suspected of *commercialism* and could be blamed for disregarding medical ethics by serving the commercial interests of pharmaceutical companies make many of the interviewed health providers very cautious in their recommendations of the vaccine to parents, or make them feel they have to explicitly state they do not have such interests.

Now I have no financial benefit from promoting the vaccine, but when I am convinced that something is good, I advertise it, because it is good for people. I am a doctor, after all, and I am promoting something that is good. (Gynecologists, Sofia, man)

Parents, on the other hand, describe the information that different health specialists provide about the vaccine as contradictory, due to the differing opinions that they have about its effectiveness and necessity. The women participating in our study felt insufficiently informed

about the vaccine, its effectiveness, applicability and preventive effect, even if they had already talked about it with health professionals. Interestingly, the women explain also that they ask for information about it mainly from gynecologists. This contradicts the opinions expressed by pediatricians who consider themselves as most responsible for provision of information and vaccination of children.

Women describe the conversations with the doctors as drifting more in a direction of being informed about the existence of the vaccine, rather than being given advice or recommendation. The insufficient information and the difficulties to understand the medical language used by the doctors to describe the vaccine is often compensated by women through an active search for information in public sources such as the Internet (which predominantly emphasizes and exaggerates the adverse side-effects of the vaccine). Women's reliance on the Internet sometimes becomes a source of tension between them and the health providers. The doctors often blame women for trusting the "incorrect" information from the Internet to challenge their expert knowledge and professional competence. The reliance on the Internet is also seen by health providers as the main reason for women's "vaccination anxieties":

This attitude against vaccines, which is starting to emerge, especially in forums, where sometimes they write a lot of nonsense ... smart things can also be found in forums, but more often all sorts of horrifying and incompetent opinions are stated with the aplomb of someone who knows a lot. (Gynecologist, Sofia, man)

The controversial and scary "unofficial" information the women receive from the Internet is combined with contradictory opinions expressed by different health professionals. In women's views the differing opinions of health professionals diminish their authority as trustful sources of information. This additionally raises women's fears and doubts about the vaccine and brings about overtly expressed skepticism. Very often women metaphorically express their concerns

that they are subjects in an experiment:

There is something else that makes me worry that we are a small country and I have the feeling that we are guinea pigs sometimes. They introduce different medicines ... I am not talking about this vaccine, but with time many things turn out to be not what they were made out to be. We live in such a confusing time, that it is very hard to expose your child to something without having enough information about it. (Focus group participant, Sofia, woman)

Women often explain that in order to overcome their fears and doubts about the vaccine they need "more information", "more knowledge", "solid" evidence that must be provided from official (usually meant medical) authorities. They also emphasize that mass-media through advertising campaigns in which representatives of the state and distinguished medical professionals "guarantee" the efficacy of the vaccine could reduce the fears and anxieties surrounding the image of vaccine.

Thus, the lack of clarity about who has the authority to provide information and which is the most "reliable" and "trustful" source of information about the vaccine differ in the perceptions of parents and health professionals. Parents' skepticism and mistrust in health care provision in Bulgaria is quite often expressed as a challenge to doctors' competencies to recommend different pharmaceutical products. In women's talk the doctors are often accused of commercialism, while in doctors' talk the women are sometimes described as "insufficiently informed", or "trusting faulty information from the Internet". Allusions of women's irresponsible attitude towards health are also evident in health professionals' talk. This creates *mistrust* in the communication about the vaccine between health providers and patients and constructs the doubts about the quality and usefulness of this product. The metaphor of care that other medical products carry out is replaced by that of the vaccine as just another commodity available of the market (van der Geest and Whyte 1989). Thus, the described discrepancies and mistrust in the

communication between health professionals and parents, the contradictory information the parents receive from different sources as well as the over-emphasized quality of the vaccine as just another commodity on the pharmaceutical market foster the prevailing sense of anxiety and ambiguity in the local context and culturally construct the efficacy of the vaccine as ambiguous and doubtful.

Constructing the "Target" Population

Sexuality, Sexually-Transmitted Diseases and Pre-Adolescent Girls

In health professionals' talk the vaccine is primarily described as a pharmaceutical product administered for pre/adolescent girls who have never had sexual experience. The metaphor of "naivety" taken from the medical discourse alludes to sexuality, but the metaphoric way in which it is used illustrates the phenomenon of desexualizing the nature of transmission of the HPV virus to avoid anxieties and cultural stereotypes related to intimacy, sexual experience and risky sexual behavior:

So ... [the vaccine] would be effective if applied to girls before ... at the beginning of sexual life. [For] the so called naive girls, who have not been in contact with this virus..." (Gynecologist, Sofia, woman)

In many studies from different countries the link to STIs has often been mentioned as a problematic point in the communication between doctor and parents about the HPV vaccine (Lutringer-Magnin et al. 2011; McCaffery et al. 2003). In order to avoid explicit reference to risky sexual behavior, when communicating about the vaccine the emphasis has been on the potential for prevention of cervical cancer. By constructing a publicly recognized image of the

⁴ In the medical discourse the metaphor of the "naïve girls" connotes girls without sexual experience. Here we use it more broadly and metaphorically.

Doctors' and Parents' Perspectives on Communication Regarding HPV Vaccination in Bulgaria

HPV vaccine as a "vaccine against cancer" the explicit links between the sexual transmission of the virus and prevention of STIs is avoided.

In the Bulgarian context some moral considerations and stigma over the sexually-related origin of the HPV infections shape also the ways in which the public image of the HPV vaccine has been constructed. The discomfort that topics related to sexuality and SDIs might bring to parents when recommending vaccination to their children are cautiously avoided by the doctors. In their talk HPV infection as an STI is not mentioned and the reference to sexuality is reduced to medical textbook descriptions of the transmission of the virus. Prevailingly, the vaccine is described as a pharmaceutical product preventing cervical cancer. None of the physicians participating in our study discussed the preventive effect of the vaccine for problems other than cervical cancer. This image of the product as a "vaccine against cancer" shapes both doctors' and parents' perceptions and it is established as publicly "acceptable" in the national context. The phrase "every day one woman dies from cervical cancer in Bulgaria" plays the role of a slogan advertizing the vaccine and succinctly presenting its expected benefits in term of saving lives. The phase is repeated in almost every interview with health professionals:

[In Bulgaria] every day one woman dies from cervical cancer, this is something very scary. If people hear this and understand it, I think they can prevent it, by getting vaccinated. (Pediatrician, Sofia, woman)

The interviews with parents and young women highlight that often they do not see the advantages of the vaccine as a vaccine preventing against other types of STIs caused by the HPV virus. Often this was also combined with uncertainties about the routes for transmission of the virus and the prevention from infection:

To be honest, it is not so clear to me, for example, if sex is done with a condom will this protect in any way from this virus? (Woman, 20 years old, Sofia, student)

Some specificities of the context shape the social meanings attached to the vaccine as a "vaccine against cancer" in Bulgaria. Very often the talk about HPV vaccination is channeled in the direction of the need to improve cervical cancer screening through Pap-smears for women, in order to reduce the excessively high cervical cancer-related mortality. Although some doctors point out that the vaccine should not give a false sense of security in girls and women regarding protection from sexually transmitted diseases, these references are rare.

Another specificity of the context that shapes the social constructions of the vaccine in Bulgaria concerns its gendered nature (Todorova et al. 2012). In both health professionals' and parents' discourses it is constructed as "a girls' vaccine" (Mishra and Graham 2012). The option to vaccinate boys is rarely appreciated or considered necessary both by the health professionals and parents. Apart from the "economic reasoning" regarding the cost-effectiveness of vaccinating boys present in the doctors' talk, strong gender stereotypes regarding sexual health as solely women's responsibility also emerge and connote the vaccine as a "vaccine for girls":

It sounds strange to me the idea for vaccinating (boys). It is true that men transmit the virus but if we put the focus on vaccinating young girls, than in fact there won't be anywhere [for boys] to transmit it from. (Focus group participant, Sofia, man)

Currently, it seems that worldwide the tendencies are not to cover boys on a mass scale, because the prevalence of these cancers [in boys] is very low so it is not worthwhile to have mass-vaccination; so if girls are vaccinated boys would be protected as well. (Gynecologist, Sofia, man)

The Vaccine for Adult Women: Parents as Patients

In the constructions of the "target" population for vaccination in the Bulgarian context the discussions regarding vaccinating young adults and mature women illuminate how women of different ages are constructed. The constructed image of the vaccine as "a girls' vaccine against cancer" limits the perceived applicability and effectiveness of the vaccine only to the "naive"

girls. In physicians' talk the adult women and even young adult women are very rarely considered for vaccination for preventive purposes. Most often the adult women are present in the doctors' talk either in their role of "parents" who take the decision to vaccinate or not to vaccinate their children or as "patients" with special health concerns related to HPV infections.

The *women-parents* who seek information about the vaccine and even consider vaccination for themselves are described in the doctors' talk as "intelligent", "educated", "having higher financial status", "more concerned about theirs and their daughters' reproductive health", "more aware of the health risks" related to the HPV virus. These descriptions uncover important perceived social differences existing among women who seek/receive information about the HPV vaccine that are discursively reconstructed in doctors' talk. Some of the doctors juxtapose what they see as skepticism and negligence about health of the women from the big cities to the strong positive attitudes towards the vaccine of disadvantaged women from the countryside:

One mother burst into tears. She was determined [to vaccinate], because her family has a genetic predisposition. Her mother died from cancer. She cannot say the word, she says "women's diseases", she cannot say exactly where [the cancer] was and her grandmother also had problems. Her sister has this problem. And she wanted to vaccinate her two daughters. They are still young. When she heard the price of the vaccine (she is a seamstress), she burst into tears. It is difficult in such cases. People's interest is high and I think that if the problem with the price did not exist, at least... let's not say a big word, but 50% of mothers want to have it for their daughters. (GP, Kurdjali, woman)

Age of women also channels the communication about the vaccine and shapes its social representations as a medical product that could have not only preventive but also therapeutic effect. The age limits for vaccination emerging in the medical literature and local discourses exclude older women as real "beneficiaries" of the vaccine. When asked about the possibility to vaccinate adult women, the doctors in our study often describe them as "having been already infected". Allusions to promiscuity are also sometimes evident:

And if we have a woman at the age of 40, who has had an infinite number of sexual partners, I can't see how we would be able to remove all that has accumulated during decades, with just a vaccine. She, of course, has the right to try it. If she has excess money, let her try." (GP, Sofia, man)

Thus, the metaphor of the "naïve" girls is contrasted to that of the "promiscuous" adult women in the social constructions of the vaccine for different groups of its "target" population. The beliefs of women regarding age limits for vaccination often correspond to those of the doctors. Namely, the women participating in the study often describe themselves as being "too old" for vaccination. Thus, women and doctors mutually construct in their communication the image of the subjects to whom the HPV vaccine is medically and socially relevant as well as the social and medical limits of its applicability, which reflects wider meanings attached to women of different ages. These limits are rarely contested by women in the local context. However, this also plays the role of tacit individual resistance and cultural challenge of the perceived efficacy of the vaccine in the local context.

The Role of Significant Others: Communicating with Mother

The importance of social support in taking a decision for vaccination is illustrated in an interview with an 18 year old student. The young woman was very willing to vaccinate herself after undergoing treatment for an HPV infection. The adverse experience with the virus was extremely frustrating for the participant and she was actively searching for information about whether the vaccine would be effective in her case. The young woman mentioned that one of the obstacles that she could not overcome in her pursuit of vaccination was the problem of *communicating with mother* on topics concerning sexuality and sexually transmitted deceases.

As Romo et al (2011) point out trust between mother and daughter, especially on issues

concerning sexuality and prevention of STIs is very important in the process of decision making for HPV vaccination. The authors claim that it is also a precondition for further communication with the young woman's doctor on sexual topics (Romo, Cruz, and Neilands 2011).

The story of the young participant introduces the issue of *family support* as a constitutive element of the meaningful representation of the vaccine. In the case of the 18 year old young woman, the main source of trustful communication about HPV-related problems and the vaccine was her sister. Thus, the absence of trust and support from family is a perceived barrier towards this desirable yet, unavailable pharmaceutical product. Often the decision for vaccination of young adolescent women depends very much on parents' knowledge and attitudes towards the vaccine, due to the need for moral and financial support. Embarrassment and difficulties in communication between parents and children on issues concerning sexuality, STIs and reproductive health create the "inaccessibility" of the vaccine in certain cases:

So, how would a 16-17 years old girl go to her father and say: "Dad, give me [some money], because I have two-three boyfriends ..." (Gynecologist, Plovdiv, man)

The health providers strongly emphasize the key role of parents in seeking information, educating their children and ensuring moral and financial support for their daughters in regard to the HPV vaccination. This case illustrates that the social life of the vaccine is not locked only in the cabinets of medical doctors and the meaningful construction of this product does not depend only on the communication between physicians and women. It is also embedded in family relations and the ways topics of sexual health and intimacy are touched or avoided in conversations with significant others.

Conclusions

Our analysis reveals how constructions of the benefits and the risks surrounding the vaccine are shaped in the communication between parents, doctors and significant others. Media, health authorities and doctors are most often mentioned by the participants as a main source of information, which shape parents' attitudes about HPV vaccination. However, parents describe the contradictory information they receive from the public sources as well as the contradictions in their dialogs with different health specialists regarding the HPV vaccine, its safety, efficacy and effectiveness. They identify these contradictory constructions as confusing and attribute them to the 'suspicious and doubtful' quality of the vaccine. The unclear responsibility of the different health specialists (pediatricians, gynecologists and GPs) to inform about and vaccinate children is also seen as confusing by parents. Lack of trust in communication with physicians about the vaccine calls into question its perceived efficacy. The image of the vaccine as commodity overweighs that of a product for health prevention. The overemphasized commodification of the vaccine raises uncertainty in parents' decisions and provokes ambiguity in their discourses about the potential to prevent from infection and disease. Thus, mystery, anxiety and doubtfulness become part of the social image the HPV vaccine takes in the local context.

Although health professionals realize the importance of the dialog with parents and their power to persuade, most of them (except pediatricians) do not envision their role as "active providers" of information. Uncertainties about the vaccine's effectiveness and anxieties that such recommendations could cast doubt on their professional ethics due to the prevailing image of the vaccine as commodity make the health professionals cautious when talking about it. The absence of a sense of personal engagement of doctors preserves the decontextualized nature of the

vaccine and reproduces the mystery and uncertainty surrounding it. This also re-establishes the image of this medical product as another commodity on the pharmaceutical market and challenges its meaningful representation as a metaphoric expression of care provided by doctor to patient.

Some ethical issues and also parents' and doctors' discomfort with discussing issues of sexuality and STIs where preadolescents are concerned, delineate another specificity of the socio-cultural context in which the vaccine appears in Bulgaria. In this case, the cultural stereotypes and stigma associated with STIs are carefully avoided by desexualizing the vaccine in constructing its public image. Instead, a more socially acceptable image of a "vaccine against cancer" from which "every day a woman dies in the country" is adopted and discursively reproduced. These shifts in the metaphoric expressions of the vaccine uncover the interplay between the process of *social production of meanings* and the process of *contextualization* of the HPV vaccine. During the interplay between these two processes hidden cultural assumptions and social meanings embedded in the local context emerge and map out the social life of this pharmaceutical product.

In this paper we show how the social life of the vaccine develops in the context of the current Bulgarian society. Parents' and doctors' ways of communicating about the HPV vaccine reproduce social meanings and interpretations related to sexual health and its protection. The uncovered processes transforming the HPV vaccine from material to social "thing" reveal the ways through which non-human objects such as the pharmacological products begin to live their social life with and between people in a local context.

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