Once again? - How an upcoming vaccination debate is portrayed in (Swedish) media

Introduction

Different kinds of vaccinations are lively discussed in media. This is not a new situation, but has been intensified with break-outs of pandemics or unexpected side effects of a vaccination, such as the swine flu vaccination (Lundgren, 2013). The media ‘‘vaccine-genre’’ is, in other words, something recurrent; the fear of side effects is discussed in relation to the fear of the disease (Ideland 2007). By this follows that the competence to understand media reports when making decisions is important. One aggravating aspect in understanding media reports is, according to Korpan et al. (1997), that they are often brief and preliminary and sometimes contradictory, which make them hard to understand.

Biological topic

The starting point in this project is the vaccination against human papillomavirus (HPV). The virus can cause cervical cancer and the vaccination is nowadays a part of the vaccination programme in Sweden and is offered all Swedish girls. During the last year some side effects of the HPV-vaccination have been reported. According to EMA (European Medicine Agency) no evidence supports such claims (EMA, 2015). It has been more discussed in Denmark compared to in Sweden (Statens Legemiddelverk, 2015; Svenska Dagbladet, 2015). It might once again be a discussion in media about vaccinations, something very common during the swine flu pandemic 2009-2010 when a free vaccination was offered all citizens in Sweden.

Rationale

The ability to use knowledge in science as an active citizen has been richly emphasized (e.g., van Eijck and Roth, 2010). Commonly this knowledge is expressed as scientific literacy. The decision about the vaccination can in science education be regarded as a socio-scientific issue (SSI). Ratcliffe and Grace (2003) describe a socio-scientific issue ‘‘to be one which has basis in science and has a potentially large impact on society’’ (2003, p. 1). These SSI’s are often reported in media. The capacity to follow and evaluate discussions about science in media is often emphasized and reported as a deficit in the scientific literacy among students (Jarman and McClune, 2010).

Theoretical background

This study focus media reports in the *risk society* (Beck, 1992), since side effects are risks both for the society and the individual. Beck stresses that there is a strong difference between how individuals evaluate and think about side effects. While scientists focus on scientific proof, a lay person sees it in another way. Beck considers the judgment of risks as difficult but necessary for the individual. In the judgment, both for the individual and for society, different types of experts are central. These experts are often one important part of the media reports.

Key objectives

The purpose with this study is to investigate how media reports about the vaccination against HPV. This is the first step in a larger study where the purpose is to investigate how young people deal with the vaccination discourse.

Research design and methodology

A qualitative content analysis (Hsieh & Shannon, 2005) was conducted on the six largest daily newspapers in Sweden: Aftonbladet, Dagens Nyheter, Expressen, Göteborgsposten, Svenska

Dagbladet and Sydsvenskan. Articles from a period of 23 months, from 1 January 2014 to 30 November 2015, were accessed through the database *Mediearkivet* using the search line "Gardasil OR hpv". The list of articles were reduced following three exclusion criteria (Bohlin & Höst, 2014): 1) the article was an identical copy of another article, 2) the article comprised less than 35 words, 3) the story of the article was unrelated to hpv-vaccine as a vaccine to prevent cervix cancer. After the exclusion there were 40 remaining articles.

Findings

The content analysis resulted in eight categories. The categories were facts, scientific knowledge, medical knowledge, risks, worry and alarm, emotional arguments, economy, individual versus society. To the risk category texts, which mentions vaccination risks in a neutral way, were categorized, compared to the category worry and alarm which contains texts that more shouted out what could happen. Medical knowledge was most common, followed by worry and alarms. The category individual versus society was mentioned only once.

Conclusions

Even if medical or scientific knowledge are common the media reports demonstrate a wider repertoire of arguments. For instance is emotional arguments a part of how media presents a problem. In this way the use of media reports can broaden the arguments when discussing the subject. In addition, the worries and alarms are interesting from an educational perspective, since these can be critically analysed and discussed in science education. In our presentation we will describe the categories more thoroughly to illustrate the different categories. We will also compare the categories to those texts students meet in their biology textbooks.

References

Beck, U. (1992). *Risk society towards a new modernity*. London: Sage Publications.

Bohlin, G., & Höst, G. E. (2014). Is it my responsibility or theirs? Risk communication about antibiotic resistance in the Swedish daily press. *Journal of Science Communication, 13*(3), 1-17.

EMA. (2015). European medicine agency 794763/2015. Retrieved 160109 http: www.ema.europa.eu/docs

Hsieh, H.-F., & Shannon, S. E. (2005). Three approaches to qualitative content analysis. *Qualitative Health Research, 15*(9), 1277-1288.

Ideland, M. (2007). Sick children. How medial and personal experiences are woven together. *Ethnologia Scandinavica,* 37, 63–71.

Jarman, R., & McClune, B. (2010). Developing students' ability to engage critically with science in the news: Identifying elements of the 'media awareness' dimension. *Curriculum Journal*, 21(1), 47–64.

Korpan, C. A., Bisanz, G. L., Bisanz, J., & Henderson, J. M. (1997). Assessing literacy in science evaluation of scientific news briefs. *Science Education*, 81, 515–532.

Lundgren, B. (2013). En pandemis vetenskapliga verkligheter. [A pandemic's scientific reality). *Kulturella perspektiv* 2013:1, 22, 21-23.

Ratcliffe, M., & Grace, M. (2003). *Science education for citizenship. Teaching socio-scientific issues.* Maidenhead: Open University Press.

Statens Legemiddelverk. (2015) http://www.legemiddelverket.no/Nyheter/Bivirkninger/Sider/HPV-vaksine-og-bivirkninger.aspx retrieved 150928.

Svenska Dagbladet. (2015). http://www.svd.se/biverkning-av-hpv-vaccin-utreds retrieved 150927

Van Eijck, M., & Roth, W.-M. (2010). Theorizing scientific literacy in the wild. *Educational Research Review*, 5, 184–194.