There are no sources in the current document. In response to the article by Gilmour, et.al. Childhood *Immunization: When Physicians and Parents Disagree* [1] we feel that while the view points of ethicists and lawyers were clearly presented, the view points of pediatricians in private practice, those on the front lines of immunizing children, were not. At a minimum, any article on childhood immunizations in an AAP sponsored journal must clearly and unequivocally state:

1. Childhood immunizations are safe and effective.
2. Multiple large scale studies have shown that to the best level of decision making that is available in medicine, there is no link between childhood vaccines or thimerosol and childhood autism.
3. Multiple large scale studies have shown that to the best level of decision making that is available in medicine, there is no link between childhood vaccines or thimerosol and any other neurological, developmental, or behavioral problems in children.
4. With the singular exception of smallpox, all vaccine preventable diseases are still present in the community, and pose a risk to unvaccinated children.
5. High enough rates of non-immunization will diminish the effectiveness of herd immunity and increase the risk of these diseases causing serious health consequences to all children.
6. While it is true that all vaccines have some side effects and are not "risk free", the common risks associated with vaccine are trivial and are of no long-term significance. [2,3]

Addressing specific points made in the article, the authors state, and we agree that parents have differing needs as to what information they need to decide to immunize their children. However, the types of parents who only require data and reassurance before they immunize their children are no different than parents asking other health information about any other condition their children might have, such as otitis media. Parents who refuse to immunize their children or who request alternate immunization schedules have needs that are markedly different from those seeking information. These two groups of parents should not be viewed as points in a continuum of information seeking. [4]

We would agree that CAM practitioners have a different view on the merits and risks of vaccines than pediatricians. Elevating these beliefs to a level equal to the facts about immunization presented above implies that there is room for a debate on the merits of the facts on each side. This is contrary to all of the evidence based medicine that is available to us. It gives credence to the media claims that there is a "controversy" about childhood immunizations when, in fact, such a controversy has been manufactured by the media, CAM practitioners, and celebrities who are not qualified to offer meaningful comments. Equating comments about research done at the "University of Google" , as espoused by some celebrity anti-vaccine activists, and the results of peer reviewed scientific publications is not an ethical application of science. [5]

We would agree with the authors that parents have a duty to make decisions in the best interests of their children. However, from an ethical standpoint, parents who refuse vaccination, for whatever unfounded fears are not making decisions in the best interests of their children. The fact that due to

herd immunity the risks of this decision are relatively low only means they are making a decision that adds a relatively small risk to their child's well being; it does not make the decision ethically tenable.

The authors conclude that there is generally no ethical reason for physicians to terminate a relationship with patients solely because of a failure to immunize. We would take serious issue with this premise. Perhaps the most important part of the physician-patient relationship involves mutual trust and respect. Mutuality has been the cornerstone of this relationship for decades, and is continuing to be emphasized in the context of Culturally Competent care as related to the Patient Centered Medical Home. We would posit that a parent who cannot trust the advice we give on this most fundamental aspect of pediatric care is at high risk of not being trustful of other medical advice that is offered. This distrust violates a basic tenet of the physician-patient relationship. The mutuality of the relationship is also called into question by vaccine refusal. No one today would accept the paradigm of the paternalistic physician from the 1950s who dealt with patient questions with a dismissive statement of, "Do what I say. I know best and you don't have the information to make an intelligent choice in this matter." Many parents who refuse vaccination or demand alternative schedules present to the pediatrician's office having already formed an opinion as to what they want. Many of these parents become confrontational when the facts about vaccines are presented to them. Many of these parents, when directly asked if they would desire a discussion about the benefits of immunization respond with an emphatic "No!" The parents who refuse vaccination out of an internal belief system that is not based on an accurate assessment of the available evidence have merely reversed these roles. It is no more acceptable for unilateral dogmatism to come from a patient than it is to come from a physician.

The authors fail to make a distinction between "belief systems" and evidence based statistical information. In comments about the legality of parental refusal, the authors make the point that "..."best interests" will differ and are affected by value systems, religious and other beliefs, perceptions of risk and benefit, and other considerations." Religious beliefs are often cited as grounds for vaccine refusal. We are unaware of any organized religion that specifically rejects vaccination as part of its doctrine. Parents may choose to claim a religious exemption from vaccines in states that do not permit a philosophical exemption. This only makes the parents attest to a false assertion to claim the exemption. This decision on the part of parents should not be considered ethically acceptable. The authors state that the courts have given a lot of leeway as to parental discretion in these areas. They do not, however, address the ethical concerns raised by parents making decisions that may be legally acceptable, but are clearly detrimental to their child's health. While broad leeway in parental decision making has been endorsed by the courts for years, the courts have also stated that parents may be free to make martyrs of themselves, but they are not free to make martyrs of their children.[6] We would like to have seen a discussion that takes this issue further than the assertion that vaccines are simply an issue of preventive medicine and not one of a life saving intervention.

The authors raise concerns about falling immunization rates for MMR in Britain and the *possibility* of future resurgence in these diseases. They fail to cite actual disease epidemics that have already occurred. In the 1970s, when DTP vaccine was being falsely blamed for causing brain damage in infants, immunization rates in Britain and Japan fell dramatically. There was a rise in the incidence of clinical

pertussis and in deaths from pertussis.[7, 8] Rather than being a theoretical risk, the rise in a vaccine preventable disease after immunization rates have fallen has already been documented.

The six recommendations offered by the authors are problematic. Pediatricians have already been doing what is suggested in their first two points: advising parents about the evidence based data, and telling parents when their beliefs are wrong. If these techniques worked, we would not have an immunization problem and this article would not need to have been written. We feel their point on not discharging patients solely for refusal to immunize is not ethically defensible and holds physicians to a standard of behavior that is not expected of the parents. Advice to educate CAM providers on the facts of vaccine effectiveness and safety is particularly problematic given the authors own citations as to how this has been tried and failed. Furthermore, there is no evidence that CAM providers are asking for this education. It would be hubris on our part to try to enforce a change in position for people who are not interested in hearing from us. Past history, such as the AAP publishing a joint position statement together with multiple ophthalmology groups condemning the use of eye exercises for learning disabilities has had no effect on the optometry community.[9] Changing public policy to provide additional no fault compensation for vaccine related injury is unnecessary as this policy is already in place. If the authors are suggesting that giving compensation to all children alleged by their parents to have been damaged by vaccines, then we would strongly oppose this policy. Such a policy would only serve to reinforce parents ' beliefs that vaccines are truly dangerous. We would predict that this policy would work counter to encouraging vaccination in exactly the same way that legislation to remove thimerosol from vaccines only served to make parents believe that there really was a danger from thimerosol to begin with.

Public education campaigns to increase public awareness of the issues may hold the key to changing parents' perceptions and behaviors. We believe that one of the reasons that parents have become so afraid of vaccination is the emotional approach that the media and celebrities have taken in promoting the false controversy about vaccination. One picture of an autistic child carries a lot more weight than academic pediatricians in suits and ties speaking about statistics that most of population cannot understand.[10] It is well known that lay people often overestimate the risk of rare occurrences, and underestimate the risk of dangerous events.[11, 12] Education about this mythology may enable parents to be better able to make appropriate evaluations of the evidence. One possible response to this is to present scenarios of children damaged and killed by vaccine preventable diseases. While we are trained not to use scare tactics to "bully" patients into making a medical decision, the anti-vaccine forces do not hesitate to use these same tactics, successfully. There have been a few public service announcements in favor of vaccines by some celebrities. These have been infrequent and do not approach the scope of attention given to the anti-vaccination programs.

We would also like to introduce the ethical concept of personal responsibility in attempting to define the vaccination issue. Physicians are routinely held accountable for their decisions, and malpractice claims are routinely filed for adverse outcomes, regardless of fault. We would like to see a discussion on holding parents responsible for their decision to refuse to vaccinate their children. We would like to introduce the concept that these parents should be financially responsible for any damages they cause

to others as a direct result of their personal decision. This may extend to higher health insurance premiums for those who refuse vaccination, much as there are higher premiums for smokers. Such tenet of personal responsibility is not foreign to our society: careless campers who start forest fires are held financially responsible for the cost of controlling the fire. Public health measures have a long history of responsibility in the form of quarantine for infectious diseases, ranging from smallpox containment centuries ago, to measles containment in the 20th century. It may be reasonable for public policy makers to investigate whether it is reasonable to hold parents of unvaccinated children financially responsible for the containment costs of any epidemics they start. The media claims the right of free speech in presenting “both sides” of the vaccine “controversy”. This may be reasonable initially, but there reaches a time when the evidence about vaccine safety and effectiveness is so overwhelming that continuing to present the issue as an unsolved mystery is the equivalent of shouting “FIRE!” in a crowded theater. We would suggest that the issue of public safety should be more important to the FCC than the use of obscene words on late night television. Parents who refuse immunization should also be legally enjoined from pursing malpractice claims against their physicians for failure to vaccinate, assuming that appropriate information in the form of Vaccine Information Sheets from the CDC have been given.

1 Gilmour J, Harrison C, Asadi L, Cohen MH, Vohra S. Childhood immunization: when physicians and parents disagree. *Pediatrics*. 2011 Nov;128 Suppl 4:S167-74.

2 Offitt PA. *Deadly Choices: How the Anti-Vaccination Movement Threatens Us All*, Basic Books, 2011.

3 Offitt PA. Autism's *False Prophets: Bad Science, Risky Medicine and the Search for a Cure*, Columbia University Press 2008.

4 Brown KF, Kroll JS, Hudson MJ, Ramsay M, Green J, Long SJ, Vincent CA, Fraser G, Sevdalis N. Factors underlying parental decisions about combination childhood vaccinations including MMR: a systematic review. *Vaccine*. 2010 Jun 11;28(26):4235-48. Epub 2010 May 14.

5 Oprah television show aired 09/18/07 as cited in Mnookin, S. *The Panic Virus: A True Story of Medicine, Science, and Fear.* University of California Press, 2011

6 *Prince v. Massachusetts*, 321 U.S. 158 (1944).

7 Church MA. Evidence of whooping-cough-vaccine efficacy from the 1978 whooping-cough epidemic in Hertfordshire. *Lancet*. 1979 Jul 28;2(8135):188-90.

8 Kanai, K. Japan's experience in pertussis epidemiology and vaccination in the past thirty years. *Jpn J Med Sci Biol*. 1980 Jun;33(3):107-43.

9 Handler SM, Fierson WM, and Section on Ophthalmology and Council on Children With Disabilities, American Academy of Ophthalmology, American Association of Pediatric Ophthalmology and Strabismus, American Association of Certified Orthoptists. Joint Technical Report: Learning Disabilities, Dyslexia, and Vision *Pediatrics* 2011; 127:3 e818-e856; published ahead of print February 28, 2011, doi:10.1542/peds.2010-3670.

10 CNN Larry King Live, aired 04/02/08 as cited in http://archives.cnn.com/TRANSCRIPTS/0804/02/lkl.01.html (06/06/12).

11 Bond L, Nolan T. Making Sense of Perceptions of Risk of Diseases and Vaccinations: a Qualitative Study Combining Models of Health Beliefs, Decision-Making and Risk Perception*, BMC Public Health*. 2011 Dec 20;11:493.

12 Hackett AJ. Risk, Its Perceptions and the Media: The MMR Controversy. *Community Pract*. 2008 Jul;81(7):22-5.