Systematic Errors and Biases in "Systematic Review" on

"Waterpipe" (Shisha, Hookah, Narghile) Smoking

Source: "Peer-Reviewed" International Journal of Epidemiology

[*] Chaouachi K. Systematic Errors and Biases in "Systematic Review" on ""Waterpipe"". Source: "Peer-Reviewed" International Journal of Epidemiology. Knol 2010. Accessed 30 Apr.

http://knol.google.com/k/kamal-chaouachi/systematic-errors-and-biases-in/534k6mvefph/17

This is a critique of Elie Akl et al (University of New York at Buffalo) "Systematic Review" of the Cochrane type on the "Effects of Waterpipe Tobacco Smoking on Health Outcomes" recently published in the International Journal of Epidemiology (IJE). The paper hypes the HAZARDS OF CANCER and the authors managed to select only the studies they saw relevant for their "assessment" of "health outcomes", cancer in particular. As expected from antismoking researchers, they dismissed (details given in their "eligibility criteria") the most relevant studies when they did not find a sufficient cancer risk... Amazingly, they mostly relied on studies led in China based on water pipes working with NO charcoal and in which tobacco is BURNT as in cigarettes, contrary to what the authors believed… This point is certainly not a detail because the chemistry of smoke is completely different and, as a consequence, the potential health effects…

As we pointed out elsewhere, the right place to discuss a controversial paper containing serious errors and biases is the journal in which it was published. Unfortunately, for political (and not scientific) reasons, this is not always possible. When confronted with this problem, the IJE, a journal which has apparently adopted a clear antismoking line, rejected a critique of the flawed paper. Interestingly, they accepted a Letter by Wasim Maziak, the author of the WHO flawed report and renown ""waterpipe"" antismoking researcher...

Following a necessary foreword, we offer a critique of the document.

[Go back to List of all Knols / Kamal Chaouachi Publications List and E-mail]

Foreword

As in the case of the US-American University of Beirut)'s unethical and highly politicised paper published in Atmospheric Environment (see Waterpipegate & Climategate knol), George Davey Smith, Editor of the International Journal of Epidemiology (IJE), has rejected (13 April 2010) the critique of the very serious errors to be found in Elie Akl and colleagues' paper [**1**]. His only "scientific argument" was that "[They] receive many more papers than [they] can publish"… Of course, this is not true since the same journal has published a flat Letter (with serious errors as usual) to the Editor by Wasim Maziak, head of the antismoking US-funded antismoking US-Syrian Center for Tobacco Studies (US-SCTS) and author of the WHO flawed report on ""waterpipe"" smoking [**2**]… The Akl paper also concludes by citing this report for its "recommendations"….

We are convinced that the unethical anti-scientific decision was made by the designated "peer-reviewer" -or a member of the Editorial board of this journal- affiliated with Globalink, the world

antismoking network of about 6,000 researchers/organisations around the world sponsored by the pharmaceutical industry (Pfizer laboratories among others). Indeed, **being a member of Globalink entails a notorious non-financial ideological competing interest.** Editors of many biomedical journals of the world should be made aware of this tricky complex situation (de facto **an invisible global Globalink conflict of Interest**).

We have raised this issue in The Hague Speech). Since the Globalink affiliation is never disclosed, editors blindly send manuscripts on tobacco peer-reviewers across the world (often via e-mail) without asking them to declare their antismoking Globalink condition as a striking competing interest. This is now a great stain on the credibility of many journals after the hypocrisy of the Farmington Consensus was exposed [**3**][**4**].

Paradoxically, the IJE is a member of COPE, the Committee on Publication Ethics defined as "a code of conduct for editors of biomedical journals", "a suggested code of conduct for editors to guide them towards being fair to authors, researchers, and readers"… This remains a dream in tobacco research…

Interestingly again, there is one distinguished member among the regional Editors of the IJE: Robert West. Not only he is Editor-in-Chief of Addiction, a Farmingtonian antismoking journal [**3**][**4**], but also a Globalink member. Notably also: "Robert West undertakes research and consultancy for companies that develop and manufacture smoking cessation medications. He has a share of a patent for a novel nicotine delivery device"[**5**][**6**]…

---

[1] Akl E, Gaddam S, Gunukula SK, Honeine R, Abou Jaoude P, Irani J. The effects of waterpipe tobacco smoking on health outcomes: a systematic review. International Journal of Epidemiology. Advance Access published online on March 4, 2010. Doi:10.1093/ije/dyq002

http://ije.oxfordjournals.org/cgi/content/abstract/dyq002v1

[2] Maziak W. The waterpipe—a global epidemic or a passing fad. Int. J. Epidemiol. published 25 March 2010. Doi: 10.1093/ije/dyq054

http://ije.oxfordjournals.org/cgi/content/extract/dyq054v1

[3] Davies, John and Cameron, Douglas and Drucker, Ernest (2002) Damned and be unpublished. Addiction Research and Theory. ISSN: 1606-6359

http://www.cedro-u

[4] Davies J, Drucl ın. Addict. Res. & Theory. 2002;10(4

[5] UK Centre for T

http://www.ukctcs.

[6] West R. Co-ow

http://www.ipo.gov getPDF.pdf?Pater

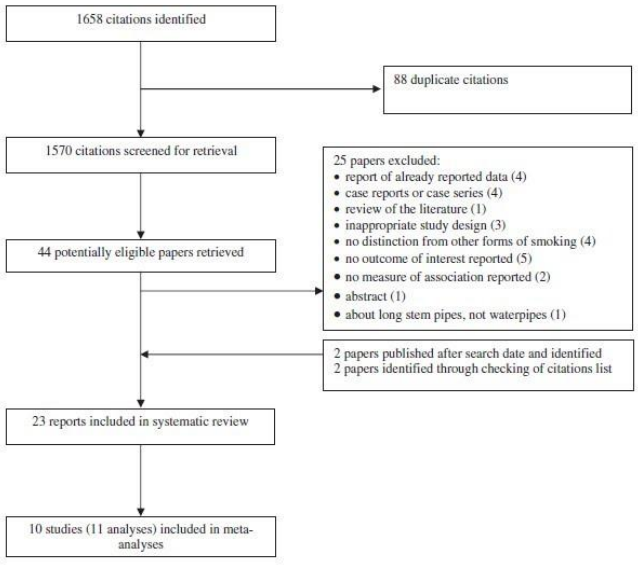

Figure 2 Study flow diagram

The Letter

[The Buffalo biased flow chart for the confusionist erroneous

so-called "systematic review" (not part of the Letter)]

Akl et al' systematic review on the health outcomes of ""waterpipe"" smoking poses two main problems and contains a certain number of errors and biases.[1]

The first problem is that the authors have extensively relied on studies run in China. However, they did not realise that the Chinese water pipes work with no charcoal but with tiny bowls of plain tobacco (no molasses) that are directly burnt as a cigarette. Among other striking differences, the temperature is therefore much higher than in the modern fashionable shisha which has got all antismoking researchers of the world concerned. As a consequence, and leaving aside the particular environment (mines polluted with arsenic and radon), such studies provide no relevant information for the public health issue at stake: shisha smoking, i.e. smoking of moassel (a heated flavoured tobacco (or no-tobacco)-molasses mixture in which the charcoal is separated from the product by an aluminium foil) with all the chemical consequences glossed over in the mainstream ""waterpipe"" literature of the past eight years.

The second problem is that Akl et al refrained, without giving the least explanation, from citing or discussing the two most relevant studies on hookah smoking and cancer ever published on this issue.[2,3] These studies are based on a fine selection of exclusive/ever hookah smokers who have been using, for decades, huge amounts of tobacco in their pipes: each time in the bowl the tobacco-weight equivalent of up to 60 cigarettes. Its authors used CEA as a cancer biomarker and found a weaker association than that in cigarette smoking even more noticeable when taking into account the long and daily duration of exposure and the impressive amount of tobacco.[4] By contrast, moassel generally involves about 15 g of a tobacco-molasses mixture in which the percentage of tobacco does not go in excess of a few grams. Furthermore, and concerning USA and Europe, all studies show that this last fashionable product is used on average only but a few times a week. The dismissal of such a work is even more surprising that a dose-response relationship, viewed as a criterion of quality, is obvious in the case of these studies. Not only was the discrimination between ever cigarette smokers and ever hookah smokers strictly observed, but the findings of the second study[3] confirm those of the previous one.[2] Furthermore, no only are they in agreement with the great majority of reports and studies of the past decades -pointing to a weaker risk of cancer (including animal studies)- but they also are in correspondence with the results of a recent study on blood metabolites of tobacco smoke carcinogens in patrons of a hookah lounge in Germany.[4]

Other errors. While the authors stress that there would be a need for "a critical review of the literature", it is amazing that they have actually dismissed all existing published critiques of the papers they have selected. Just to take one example in relation to cancer, Maziak et al.'s paper ("Tobacco smoking using a waterpipe…") published in the Tobacco Control journal, contains a series of serious errors that deserved minimal caution. This paper actually credited several authors for the opposite of their findings concerning the association between shisha smoking and diverse types of cancer (lung, bladder).[4]

Akl et al also credit Sukumar and Subramanian for statements about temperatures which are not to be found in their study.[5] The clarification about the differences between shisha smoking and cigarette smoking as far as temperatures are concerned, and the importance of considering the Maillard chemical reaction, were first published in a transdisciplinary doctoral thesis, in several peer-reviewed publications including the two studies on hookah smoking and cancer, the critique of the WHO report in which the experts did not make the least distinction, not only between cigarette smoke and shisha smoke, but also between different types of water pipes.[6]

Akl et al did not realise that in the Tunisian study by Hsairi et al, cigarette smoking was described the main use of tobacco (94%). In their conclusion, the authors emphasised that among youth, shisha smoking was used as a substitute to cigarettes (original : « comme succédané de la cigarette parmi les jeunes »). In other words, the subjects were not exclusive shisha smokers as in the Pakistani

studies. As for controls, it is noteworthy that their were using on average +/– 5 daily cigarettes.[7] The same goes for the Indian study by Gupta et al. in which data are missing concerning hookah, not to mention the fact that no information is provided on the simultaneous use of cigarettes and, most importantly, bidis and smokeless tobacco.[8]

Since Akl et al stressed on the need to keep critical when reviewing this literature, they should have noted that in their main study about pregnancy, Nuwayhid et al emphasised that the main problem was the fact that they did not distinguish between the diverse type of smoking products.[9]

Concerning the only non-water pipe specific study about infertility by Inhorn, Akl et al did not note the striking result that, after adjustment for *"water pipe smoking, tea drinking, marital duration, husband's age, husband's education"*, the O.R. for cigarette smoking does NOT vary (0.5, CI: 0.2-1.3) whereas the O.R. for water pipe smoking (type not specified), when adjusted for the same confounding factors ("cigarette smoking" obviously instead of "water pipe smoking"), shows the following variation: 1.8 (CI: 0.8-4.1) to 2.5 (CI: 1.0-6.3).[10]

Akl et al support their claim that shisha smoke would contain metals and cancer-causing chemicals with studies from the US-American University of Beirut. In fact, the sound first peer-reviewed studies on the above issues were published long before in Saudi Arabia and found negative results.[11,12]

Less importantly, Akl et al credit Chaouachi for stating that shisha smoking would be "traditional of the eastern Mediterranean region". On the contrary, this author has early established as early as 1997 that it is a serious misrepresentation to focus exclusively on this region. Indeed, shisha smoking has been a centuries-old tradition in many other regions of the world, particularly in Africa and Asia.[13] The geographical distribution of shisha use is something and the recent antismoking research (mainly by the US-Syrian Centre for Tobacco Studies and the US-American University of Beirut), actually based in the "Eastern Mediterranean", is something else.

Finally, and in contrast with Akl et al's recommendation, we believe that no sound conclusion can be drawn so far from the WHO report in its present form because of its serious flaws and errors.[6] The same goes for the so-called "standardized questionnaire" by Maziak et al (ref.45) which no scientific consensus has been reached in spite of its striking weak points. What is needed is further independent sound studies on this issue. Similarly and most importantly, a radical critique of the so-called "standardized" "waterpipe" smoking machine" behind the world confusion remains an urgent priority.[14]

References

[1] Akl E, Gaddam S, Gunukula SK, Honeine R, Abou Jaoude P, Irani J. The effects of waterpipe tobacco smoking on health outcomes: a systematic review. International Journal of Epidemiology. Advance Access published online on March 4, 2010. Doi:10.1093/ije/dyq002

[2] Sajid KM, Chaouachi K, Mahmood R. Hookah smoking and cancer. Carcinoembryonic Antigen (CEA) levels in exclusive/ever hookah smokers. Harm Reduct J 2008 24 May;5(19). doi:10.1186/1477-7517-5-19

[3] Sajid KM, Parveen R, Durr-e-Sabih, Chaouachi K, Naeem A, Mahmood R, Shamim R. Carcinoembryonic antigen (CEA) levels in hookah smokers, cigarette smokers and non-smokers. J Pak Med Assoc 2007;57(12):595-9.

[4] Chaouachi K, Sajid KM. A critique of recent hypotheses on oral (and lung) cancer induced by water pipe (hookah, shisha, narghile) tobacco smoking. Med Hypotheses 2009 (online: 24 Dec). Doi:10.1016/j.mehy.2009.11.036

[5] Sukumar A, Subramanian R. Elements in hair and nails of residents from a village adjacent to New-Delhi—influence of place of occupation and smoking-habits. Biological Trace Element Res 1992;34:99–105.

[6] Chaouachi K. A Critique of the WHO's TobReg "Advisory Note" entitled: "Waterpipe Tobacco Smoking: Health Effects, Research Needs and Recommended Actions by Regulators. Journal of Negative Results in Biomedicine 2006 (17 Nov); 5:17. Doi:10.1186/1477-5751-5-17

[7] Hsairi M, Achour N, Zouari B, Ben Romdhane H, Achour A, Maalej M, Nacef T. Facteurs étiologiques du cancer bronchique primitif en Tunisie. Tunis Med 1993; 71: 265–268.

[8] Gupta D, Boffetta P, Gaborieau V, Jindal S K. Risk factors of lung cancer in Chandigarh, India. Indian J Med Res 2001; 113: 142–150.

[9] Nuwayhid IA, Yamout B, Azar G, Kambris M, Narghile (Hubble-Bubble) Smoking, Low Birth Weight, and other Pregnancy Outcomes, Am J Epidemiol 1998;148 (4):375-83.

[10] Inhorn MC, Buss KA. Ethnography, epidemiology and infertility in Egypt. Soc Sci Med. 1994;39(5):671-686.

[11] El-Aasar AM, El-Merzabani MM, Studies on Jurak Smoke. I. The organic constituents of jurak smoke. Journal of King Abdulaziz University (Science) 1991; 3: 169-81.

[12] El-Aasar AM, El-Merzabani MM, Ba-Akel H. Studies on Jurak Smoke: II. The metallic constituents of jurak paste and jurak smoke. Journal of King Abdulaziz University (Science) 1991; 3: 183-8.

[13] Chaouachi K. Public health intervention for narghile (hookah, shisha) use requires a radical critique of the related “standardised” smoking machine. Journal of Public Health [Springer Berlin/Heidelberg] 2009; 17(5): 355-9. Doi : 10.1007/s10389-009-0272-7.

****

See also COMMENTS an replies to the latter at:

http://knol.google.com/k/kamal-chaouachi/systematic-errors-and-biases-in/534k6mvefph/17#comments

or their unedited version below:

****

Criminalising Dissent and its Undeclared Motives

I was sadly and overwhelmingly surprised to realise, somewhat a bit lately, that commentator Krishan Maggon (19 April) is also the co-author of Knol articles that do not go too much “against the tide”(sic), particularly one hyping the risks of the so-called “Swine Flu” [1]… Fortunately, more and more readers are now aware of what is at stake when it comes to the "strength" and "flawlessness" of (generally and generously) Big Pharma funded "peer-reviewed" “double blind clinical trials”.

They will decide by themselves which approaches are more useful to the world public health (regarding virus “epidemics” or tobacco “epidemics”...): independent harm reduction man-centred evidence based ones or scare based, pseudo-evidence based, strikingly publication-biased, ones.

There is also, in the same Knol article about "swine flu"[1], an astounding comment by Krishan Maggon which is titled “French Vaccination Policy”. Its author naively asks: “Why the French position is different from the rest of the world (WHO, CDC) ? Why it is not guided by evidence based medicine. Is there higher incidence of adverse drug reactions to vaccines in France or is it a political decision”[2]?

Here, I cannot but refer those who are not informed, or misinformed, to relevant sources [3-7].

———

[1] Djelouat, Salim; Maggon, Krishan; bhagia, minoo; Lahaye, Patrick; Guild (KPG), Knol Publishing. Influenza (2009 H1N1) & Pregnancy: Vaccination and Treatment :Swine Flu, Influenza A, H1N1 v, Pregnancy, High Risk, WHO, CDC, EMEA, FDA, Vaccination, 3rd Trimester, Antiviral,Tamiflu, Relenza, Breastfeeding [Internet]. Version 104. Knol. 2010 mars 14. Disponible à l'adresse : http://knol.google.com/k/salim-djelouat/influenza-2009-h1n1-pregnancy/1yexqll01wr4o/205

[2] Krishan Maggon. Comment on the above : “French Vaccination Policy” 12 Sep 2009; 14:24.

http://knol.google.com/k/influenza-2009-h1n1-pregnancy-vaccination-and-treatment#view-comment-10_10

[3] F. William Engdahl. European Parliament to Investigate WHO and “Pandemic” Scandal. Voltaire Non Aligned Press Network 2010 (11 Jan) [News in Brief].

http://www.voltairenet.org/article163512.html#article163512

[4] F. William Engdahl. WHO ‘Swine Flu Pope’ under investigation for gross conflict of interest. Voltaire Non Aligned Press Network 2010 (22 Jan)

http://www.voltairenet.org/article163240.html#article163240

[5] Marc Girard. World Health Organization Vaccine Recommendations: Scientific Flaws, or Criminal Misconduct ? Journal of American Physicians and Surgeons 2006;11(1):22-3.

http://www.jpands.org/vol11no1/girard.pdf

[6] Marc Girard. L’art de créer des alertes en santé publique (L’exemple de la grippe porcine. Comment affoler les foules sous des prétextes de santé publique)[The art of designing public health alerts (The example of swine flu. How to scare crowds]. 24 mai 2009.

http://www.rolandsimion.org/spip.php?article33

[7] Oxman AD, Lavis JN, Fretheim A. Use of evidence in WHO recommendations. Lancet. 2007 Jun 2;369(9576):1883-9.

http://ebmctiame.carebmc.net/download/1190701368_Full%20Text.pdf

Apr 22, 2010 1:56 PM

Last edited Apr 22, 2010 1:56 PM

Kamal Chaouachi

****

Bibliographical References for the previous response

[1] Hayreh SS. Scientific literature and gospel truth. Indian J Ophthalmol. 2000 Jun;48(2):93-9.

http://www.ijo.in/text.asp?2000/48/2/93/14878

[2] Balasubramanian D. [Editorial] On the ways we do science. Indian J Ophthalmol. 2000;48(2):81-2.

http://www.ijo.in/article.asp?issn=0301-4738;year=2000;volume=48;issue=2;spage=81;epage=2;aulast=Balasubramanian

[3] Molimard R. Le rapport Européen Lifting the SmokeScreen: Etude épidémiologique ou manipulation ? [The European Report "Lifting the SmokeScreen": Epidemiological study or manipulation?] Rev Epidemiol Sante Publique. 2008 Aug;56(4):286-90. [in French. Abstract in English]

http://www.ncbi.nlm.nih.gov/pubmed/18703297

http://www.formindep.org/L-article-integral-du-professeur [English version]

[4] Kabat GC. Hyping health risks: environmental hazards in daily life and the science of epidemiology, Columbia University Press, 2008; 272 pages. ISBN: 978-0-231-14148-2

http://cup.columbia.edu/book/978-0-231-14148-2/hyping-health-risks

[5] Kabat G. [Interview with]. The Epidemiology Monitor 2009 (Nov);30(11):1-9.

http://www.epimonitor.net

Apr 20, 2010 4:42 PM

Last edited Apr 20, 2010 4:42 PM

Kamal Chaouachi

****

Re: Suggestions

Krishan,

I am afraid you may have read the article in a hurry. I am not going “against current established evidence based facts”. Instead, I encourage them, particularly when they are censored by the mainstream literature. Besides, and for your information, there are not such things as “double blind clinical trials” nor reliable unbiased objective “epidemiological studies” in this field of research, particularly since 2002, inception date of the US-funded Syrian Centre for antismoking ““waterpipe”” studies.

When such publications, with no blatant methodological and publication biases, are made available, I agree that “only evidence derived from large scale placebo controlled clinical and well controlled epidemiological studies” will be the key to a fruitful scientific debate and moving the field forward.

Not only the International Journal of Epidemiology “systematic review” contains very serious errors but its Editor, George Davey Smith, has openly decided to stifle any debate, leaving to understand to lay readers that their journal cannot err and reflects Gospel Truth [1][2]. This has unfortunately been a classical anti-scientific behaviour in antismoking tobacco related research for about two decades now. Many “respectable” journals have been stained by similar repeated scandals. Only history will judge.

The world growing popularity of hookah (under its modern form, “Shisha”, i.e; flavoured tobacco or non-tobacco molasses mixtures) actually poses an economic threat to classical nicotine producers (Big Pharma and Big Tobacco). The present biased “debate” over the E-cigarette is very similar. As for the big clinical trials you see as necessary, you can rest assured that the pharmaceutical industry is ready and has already begun to offer millions of dollars to fund them with the condition that they show what it wants…

You said that the cited papers “are mainly from India and Tunisia with low impact (considered 3rd World)” and you rightly stressed that they involved a low number of subjects. However, these have been cited by Elie Akl and his colleagues. I just commented on them. However the important recent two-fold French-Pakistani study (by Sajid et al.) –not even cited (blatant Publication Bias) by Akl et al, is powerful because of its aetiological nature (hookah smoking and cancer). It shows, among other strengths, a clear dose-response effect (involving light to huge amounts of smoked tobacco vs. cigarettes).

The geographical origin of biomedical studies is a big hoax. The best studies so far in this field have been led by independent researchers (from both the Tobacco and Pharmaceutical industries) living and working in the so-called “developing world”. The reason is very simple as they have a deep intimate knowledge of the local human social cultural context, contrary to their peers in high-income countries, even when the latter are native of the wealthy nations. Because they have generally studied in the USA, Europe or Oceania, they tend to analyse and misrepresent a highly complex situation from the corresponding viewpoint. This is what we may call biomedical neo-orientalism (see Edward Saïd’s works): a great bias indeed in the corresponding research.

Let us take two examples. The first one is the fact that, from years 2002 to 2009, a fair number of journals have published “studies” in which the neo-orientalist authors present all water pipes of the world as one unique object called ““waterpipe””. Search this neologism in the corresponding literature and you will understand the amazing international confusion this scientific nominalism has fuelled.

The second example is discussed below and relates to the purported chemical similarity of cigarette and hookah smokes hookah smoke is completely different from cigarette smoke (see Knol on Hookah Frequently Asked Questions).….

Because of this last fact in particular, the hookah issue has been, since 2002, continuously exposing the undeclared competing interests and poor quality of ““waterpipe”” experts and the supposedly “peer-reviewed” biomedical journals which publish their literature.

There is no such thing as serious “current evidence” about the association of passive smoking with lung cancer, if you have in mind cigarette smoking. In this field, the lay people are not informed that

there are only but twisted statistics and hyped hazards [3][4][5] . See also what Sir Richard Doll himself says about passive smoking and this is all there is to it…

I have no problem in “swim[ming] against the tide”. I just cannot swim against scientific integrity… Thank you for your interest.

_____

Bibliograpical references are provided in a further post due to the technical limitations

Last edited Apr 20, 2010 4:45 PM

****

Krishan Maggon

Suggestions

Kamal,

Since your arguments go against current established evidence based facts derived from double blind clinical trials and epidemiological studies, these need to be backed by evidence. Only evidence derived from large scale placebo controlled clinical and well controlled epidemiological studies is acceptable these days. Traditional use of tobacco like hookah, chewing or snuffing require large scale double blind clinical trials and hundreds of millions of dollars of funding to show any meaningful data and results. No one is going to fund it least of all local governments or local tobacco industry.

There is one more issue, the impact of papers you cite are mainly from India and Tunisia with low impact (considered 3rd World) and the studies probably involved low number of subjects and short duration.

In the absence of any clinical trial data involving over 100,000 smokers and non smokers in a double blind clinical trial lasting 5 years or more or well controlled long term epidemiological studies, the current evidence against the use of tobacco and its links (both passive and active smoking) with lung cancer backed by several well controlled studies is going to prevail and remain established fact.

Knol platform gives you an opportunity to present your viewpoint to swim against the tide but it must be backed by strong data and objective analysis.

Last edited Apr 19, 2010 5:01 PM