Potential rôle of “Evidence Based Practice” in Road Safety

Paul Hewson

February 7, 2007

Report for Rees Jeffrey’s Road Fund concerning the evaluation of the pilot delivery of a course in “Evidence Based Practice in Road Safety” jointly funded by Rees Jeffrey’s Road Fund and Devon County Council
1 Background

Evidence based practice is a mainstream concept in clinical practice and hence medical education [1]. It is thought to have had a major impact on healthcare by engendering good practice through sound judgement of scientific evidence and continued professional development amongst its practitioners. This approach is less common outside the mainstream medical community, in areas such as injury prevention. In specifically considering road traffic injury prevention, it is noteworthy that World Health Organisation (WHO) figures suggest that 140,000 people are injured on the worlds roads each day, 3,000 of whom are killed and 15,000 are disabled for life [2] On the 7th April 2004, the WHO dedicated World Health Day specifically to Road Safety and proposed advocacy by healthcare practitioners as part of the solution to this injury burden. The WHO have provided a definition of advocacy; a combination of individual and social actions designed to gain political commitment, social acceptance and system support for a particular goal or programme [3]. Nevertheless, there has been little study of the effectiveness of health professionals in driving the implementation of measures to reduce death and injury of the roads [4]. In stating a rôle for public health professionals for advocacy towards reducing injury burden, the strategic imperative requires that policy makers acquire objective evidence of effectiveness, public acceptability and cost effectiveness, and it has been argued that advocacy can narrow the gap between what is known to be effective, acceptable and efficient and what is practiced.[4]

National policy for road safety is determined by the Department for Transport, with road safety having a ministerial level appointment. However, in addition to the national effort, local provision is effected by Police Forces and Highways Authorities. Whilst these operate in some respects to national standards (national laws are enforced, legislative requirements to ensure safe and efficient highways are constructed) there is considerable scope for local autonomy and at this level there is considerable scope for local political accountability. It is the group of professionals delivering services at a local level that are considered in this paper, but it is acknowledged that there is no clear divide between national and local. For example, in the UK the Department or Transport have issued guidance which aims to “assist road safety officers and other practitioners to conduct their own evaluations and to be better informed when commissioning an evaluation”. [5] However, whilst there is sometimes joint working with public health professionals (there is a shared interest in encouraging modal shift to more sustainable transport for congestion as well as for more active lifestyles), road safety professionals do not have the same educational background as...
many healthcare professionals, in particular they are unlikely to have been formally exposed to evidence based practice.

2 The research project

Funding was received from the Rees Jeffreys Road Fund and matched by funding from Devon County Council to develop, pilot and evaluate a short course in “Evidence Based Practice”. Volunteers were recruited by open advertisement through relevant professional bodies (IRSO, LARSOA, ICE) as well as through the Beacon Exchange scheme that has been running in road safety in 2006-7. The pilot course was therefore open to volunteers nationally. Course participants comprised police and highways authority road safety officers, collision investigators, data analysts, traffic engineers as well as various managers. Collectively, the course participants represented a considerable wealth of road safety practice. The pilot course ran in 17th to 21st July 2006, with 22 volunteer road safety practitioners who attended a four day course entitled “Evidence Based Practice in Road Casualty Reduction” held at the University of Plymouth. Feedback about the course itself was generally positive. Most individual sessions were rated by 80% or more participants as good or very good; although three sessions (case control studies, systematic reviews and a mathematical session introducing odds-ratios and other concepts) were only rates as good or very good by 70% of participants. Only one person rated two sessions as being “poor”, these sessions covering qualitative research and research into practice. A number of smaller issues for improvement were identified; the two most significant issues were length and content. It was difficult for many people to justify this amount of time away from work, conversely there were a number of suggestions for other material which should have been covered.

This course was modelled very closely on courses run for a range of health care practitioners via the Peninsula Postgraduate Health Institute, part of the Peninsula Medical School. Participants were given a small number of taught sessions on essential research concepts, such as study design and some of the numerical measures used when investigating injury prevention (odds ratios and basic statistical inference). A large part of the course was built around small group sessions where participants were directed to appraise pieces of relevant road safety research having been provided with some information about the particular study design used. Throughout the course, ideas were collected from the participants to see what was learnt from the structured appraisal. At the end of the course, more general thoughts were collected on the potential rôle of evidence based practice in road safety. Given
generally positive feedback about the course itself, it is claimed that at least the majority of the 22 participants have been given a insight into the just what “evidence based practice in road safety” might entail. Given this grounding, the aim of this report is to summarise the thoughts of these 22 practitioners on the potential value of a more explicitly evidence based approach to road casualty reduction.

3 The value of studying original research

The first question asked whether course participants thought there was value in studying the original research. It was very apparent that groups of road safety practitioners have the ability to engage with primary research in a productive manner.

“Absolutely, although the degree to which you do that would probably increase with practice (as confidence builds)”

It became clear throughout the pilot course that whilst there was an awareness of research, it seemed very easy to trade urban myths with the prefix “research says”. It was never clear how this research had come into a practitioners conciousness, but it was clear that dealing first hand with research was a new experience for some.
“I have never considered research as a method of looking at a particular road safety issue. Whilst aware that obviously research was being undertaken, and from time to time hearing about it, I have never given it much credence of seriously looked at it as any more than general information”

In this context, some participants highlighted the importance of understanding research:

“Send staff on courses such as this and subscribe to appropriate websites and journals”

“Road safety suffers from the belief that there’s nothing to know about it - public knows best”

And there was interest in generalising the results of a study carried out elsewhere to a local setting:

“…results could be adapted to meet local requirements”

However, it was clear that the course equipped participants to make a more informed view of research. In response to a later question, the following comment was made.
“I usually take it for granted as being ‘gospel’ - that has changed and I now feel more equipped to challenge and use that information”

What it noteworthy is that being equipped to read research appears to increase a practitioners inclination to apply findings.

Whether or not practioners are expected to continue an in-depth engagement with primary research, a very clear rôle was identified in relation to understanding the context in which they operate. On participant suggested that there was value in studying the research:

“…for practitioner induction courses and for CPD”

This thought was reinforced by comments made by a number of respondents:

“…it questions what we all accept as good practice when in fact this might be flawed. But at least it makes us think is there better practice”

which implies that studying research may act as a reminder that we all operate in a much bigger world not limited by our own expertise or even the corporate expertise of our current employer. Another respondent identified the potential to change the way they approached aspects of their work as a result of studying original research:

“I shall use the lessons learned to modify my approach to analysis of data and in reaching conclusions”

It became clear to some participant that the only way of assessing the value of a piece of research is by detailed study. Hence, it is necessary to deal with research in detail in order to understand its relevance:

“Firstly to determine the overall value of the research (including its strength) and how this relates to our own particular areas”

“…without wanting to measure the word ‘confidence’ it is something that needs to underpin our decision making processes rather more and getting back to basic info without intermediate noise is vital”
Any engagement with research highlights a number of papers that probably didn’t deserve to be published. Thoughts on the value of research obviously differ between researchers (who would be interested in developments of research methodology) and practitioners (who are obviously focused on understanding causation and the effectiveness of remedies):

“Only if it is apparent that the . . . research relates and relies heavily on making sense of making more sense by doing so”

“I am more likely to now search for research on a particular problem I will be dealing with. I hope I am now better equipped to easily identify quality papers”

One point which needs further consideration was made in relation to avoiding mistakes:

“. . . to understand the dangers or possibilities of applying the research findings in other situations and to avoid re-inventing the wheel or duplicating other mistakes”

which is noteworthy because negative results are less likely to be published. Indeed, work which is of inherently lower novelty value, but more directly relevant to particular practitioners is also less likely to be published. Work of high novelty but of unproven effectiveness is also likely to be reported in the non-peer reviewed literature (with unquestioned and glowing results).

Further comments later will address the issue of the professional position of road safety practitioners, but one respondent suggested that a reason for studying the primary research was to:

“. . . avoid RS begin a lightweight apple-pie”

The road safety effort doesn’t take place in a vacuum. Accordingly the reality of research being covered in the popular press was acknowledged:

“RS practitioners need to know more than [a popular daily newspaper] and members . . .”

as were the policy implications:
Figure 3: Another small group working to appraise a paper

“Especially when evidence / research is reported in press, becomes national policy”

“Rather than have ideas about ‘practice’ imposed on practitioners it is useful to understand how the idea was reached”

Comments were received in other feedback indicating the desirability of explaining policy decisions and guidance:

“Evidence based practice and policies should become the norm”

The science and logic behind the action being considered. And the guidance should detail what research it is based on”

The ideal world scenario was acknowledged as valuable:

“The ability to be able to take an informed view of research is useful”

however, the practicalities of doing this will be explored.

The value of studying the original research is that it is very easy for non-researchers to hold it in awe. Some effort during the course is made to encourage practitioners to consider bias
and confounding which may influence the results of a particular study, and the ever-present possibility of this issue in all research was noted:

“...with caution ref. bias and elements which may not feature which impact on outcome”

It was very clear from the feedback that participants no longer placed research on a pedestal:

“The study of specific research papers has confirmed my suspicions that they present more questions than answers. The course ... an excellent insight into how to interpret and disseminate the wheat from the chaff”

“...I know a good deal is flawed and biased to the end user, I can now read and evaluate data within reports and assess if the findings are accurate or theoretical”

Similar feedback was received from participants who perhaps attended the course without such suspicions:

“This course has made me aware that papers should be carefully read and NOT assumed to be without fault”

“I was not aware how many questions were left unanswered by a piece of research”

“With the number of ‘caveats’ in most research papers all research should be studied”

“Essential. Cannot rely on others’ interpretations”

“As a baseline to establish its validity”

“...just reading the abstract or conclusions can be misleading”

“Research was thought to be the Gospel. Now realise that some researchers produce reports on subjects outside their field”
“Before the course I took papers as Gospel from better educated people, I now realise that this thinking is flawed”

Some specific methodological aspects were obviously received:

“... if the research is a particular area of interest ... and can be generalised”

On other area perhaps requires careful thought. It became apparent throughout the course that there are a number of road safety “dogmas”. This will be discussed further in the more detailed section of this report, but a number of participants offered a filtering system when appraising research. Research that was friendly the accepted dogma was accepted without much reservation, research that raised difficult questions was regarded as inherently flawed and the appraisal process became one of finding the fatal flaw rather than taking a balanced view of strengths and weaknesses.

One unchallenged dogma was belief in the reasons for success in casualty reduction:

“Practice is getting harder as we have made all the big hits in casualty reduction in the area of engineering and enforcement”

yet causality is difficult to prove in this way. Modal shift into cars, improved safety features in cars (e.g. airbags), congestion acting as a traffic calming device may all have played a part. One would assume it is quite important to know which interventions have been effective, which weren’t.

Bearing in mind the fact that road safety is an area interfacing human behaviour, systems behaviour, ergonomics, socialisation and so on and therefore present quite a complex system to analyse. Nevertheless, there is a strong desire for simple answers to complex problems:

“There is a value in studying original research, even though the critiquing of research tends to limit the conclusions or narrow the field of applicability for practitioners”

However, it could be argued that it is entirely reasonable that in the midst of complexity, firm conclusions from any one study will be limited. It seems more sensible to build up a solid foundational knowledge of practice based on small, limited but complete studies than to rely on any exciting research which fails to address the reality of the context in which it is placed.
4 Dissemination

There was plenty of feedback indicating that practitioners do not currently access the evidence base in any systematic manner:

“Not widely available (or doesn’t appear to be). If I hear of a particular issue or research finding is it normally by accident . . .”

“Unless you know where to look there isn’t any dissemination to the lay person”

With regard to the latter comment, it is not clear here whether lay means non-researcher or non-road safety professional. The implication is that it means non-researcher. These points continue to be reinforced:

“I feel that dissemination of research needs to be vastly more available to personnel such as myself and Joe public, it is often that research of a certain genre only appears if seriously searched for”

“It should be more readily available and free to those who need it (practitioners)”

“Needs to be made more readily accessible to practitioners”

“This all needs to be readily available to all practitioners in the specified field”

However, there was one comment indicating a desire to go looking for research now it was known to exist:

“I would like it to be more available. Now I know it is there I will make more time to go and find it”

In some ways these comments are a little alarming. It may be that by focusing on generally academic papers covering topics of more interest to local practitioners, course participants were put in a frame of mind that encouraged them not to think about work published by
DfT and TRL. Clearly, in a number of topic areas, the DfT have published research digests which are freely available to any and all who access the relevant part of their website; this was acknowledged by one participant and this comment is included in later. Likewise, IRTAD and the TRL digests are not difficult to find on their website, although the details are only available on subscription.

There were suggestions that dissemination could be improved, many of which involved use of the website:

“Needs some work but should be focused on practitioners”

“Direct dissemination of research has in past been limited to journals etc. but with internet this should be easier in the future”

“Maybe links to County websites, as it is often hidden in research establishments”

“Web sites might offer links to appropriate sources”

Again, comments on dissemination need to be placed partly in the context that available and accessible materials do not appear to be used as often as they might. It seems reasonable to assume a working knowledge of material produced by the DfT and TRL, as well as the Scottish Executive. It had been assumed (incorrectly) that prior to the course a few issues which did receive attention in the national press and were freely available in source form (such as the article in the BMJ on the contrast between HES and STATs 19) would have been familiar items. Nevertheless, dissemination of the wider research base (transport research institutes outside the UK, academic journals and databases) is something which a practitioner could reasonably argue is not worked out for them.

4.1 Volume of available research

Generally, there was a very strong desire to receive information in some kind of summary or digest form. The second question invited comments specifically around the dissemination of research. A number of responses to the first question did identify a desire for reviews of topics. For example, one respondent suggested that primary research should only be studies when it wasn’t covered in some kind of review
“In limited circumstances - a review of related research would generally be more helpful to me”

and another respondent made a very clear statement indicating a desire for authoritative reviews:

“Although use of synthesised evidence may be more beneficial to practitioners”

Similar responses were also made in the second section

“Time constraints are such that practitioners must be able to rely on high quality research disseminated has to be of best practicable quality. This does not appear to be the case now”

and similarly

“Generally, one is too busy to read and analyse lengthy papers and many may find them challenging, so dissemination needs to be clear, concise and accessible”

Again, these comments may be a little disappointing in the light of material that is already available. However, not everyone on the course identified reviews as their primary interest in terms of understanding the evidence base. The most optimistic indicated a desire to keep abreast of all topics of interest:

“Can be overloaded at times, but all aspects must be researched”

Other responses indicated some thoughts around prioritising the search:

“I do not think, I know, I will not have enough time for everything. But important subjects deserve more time for the subject”

“Selective monitoring of new research and searches for specific topics when needed”

“Unable to deal with volume of research related to road safety, but smaller more defined topics might be possible in terms of keeping on top of.”
Some participants suggested this was a work burden that could be shared around a team of practitioners:

“Use search tools to identify relevant papers, may have to rely on accurate ABSTRACTS to select further reading of papers. in a team, give individuals the task of looking at sub-categories and advising the team of potentially relevant papers”

“To talk within the team to look at subscribing to the potential websites / info sources which will help filter out more irrelevant research leaving more relevant helpful info.”

“Dependent on area researching e.g. 3 people in data/research team 2-speed / traffic flow related 1 accident road safety related. Other persons (managers) understanding of the need to research needs to be in depth and involved”

But it is perhaps no surprise that some respondents indicated this was an impossible task:

“Not enough time to study all research that is available”

and that there were suggestions to “out-source” this activity:

“Employ a professional once / twice a year to assimilate”

We will return to this issue later.

4.2 Quality of extant evidence base

Quality can be an emotive and value laden word. It did become clear that much of the research published was tacking problems from a different perspective to that of “the practitioner”. Here, we might think about quality in terms of fitness for use by practitioners. Hence even quite excellent work developing new methodology for road safety research is really of limited use, yet work of little academic novelty which almost entirely reproduces work carried out elsewhere in the world might be of great value as it limits worries about the transferability of the original work. In this context, a number of comments were made about the quality of research. One clear wish was for a “filter” which meant practitioners only have to tackle the most relevant material:
“Tricky - feel that dissemination of good research only would help people with limited knowledge”

There was some frustration that some of the research seemed to be rather internally focussed:

“Pity that the ‘the bag’ is full but much is of little use for transferability”

“...it’s staggering in volume and breadth but inevitably provides more directions than solutions”

It doesn’t set my world alight though, I am more interested in findings and implications. No picking fault in method, but I do understand connection”

Comments were received about the writing style of journals

“Need to change the house styles of the journals to improve ease of understanding. Titles and conclusions drawn are sometimes misleading writing and presentation”

Clearly, some comments expressed a deeper seated anxiety about the quality of research:

“Better funding and longer research”

“Must be disseminated as widely as possible using appropriate means and to the right people - no point in publishing for publishing’s sake”

“A better review system. Vast numbers of journals competing to carry papers can result in lots of rubbish being published”

“Some sort of published assessment should accompany the research. Good papers are self-critical, but external critique would be useful”

“The volume needs to be cut down and only Gold or Silver standard work published”
It may be noted that the review toolkits were based upon Campbell and Machin and CONSORT.

“Professional journals need to adopt this ‘course’ approach to a much greater degree. Should be less reluctant to reject papers”

Likewise

“Need also a convention on the setting up of research. Research could be graded like shares from AAA down to junk.

“Filtering out poor quality work could reduce volume. Suspect there’s a financial aspect that’s not been revealed”

In response to the question on whether researchers should provide a summary of all relevant research in a given area of road safety practice:

“…researchers should have a background in the field they are researching”

Finally, whilst only four comments were received on this issue, there was quite strong feeling throughout the course that research and practice were far too widely separated:

“There appears to be a fire break between research and practitioners which needs to be bridged to allow effective, relevant dissemination”

Most of the comments received concern the direction of research. It did appear that many of the papers examined during the course about “practice” were somewhat removed from actual practice on the ground:

“I feel that quality could be improved by taking advice from people working in the subject on a daily basis. Know the real life situation before you start to look at it”

Comments were also received in relation to commissioning research:

“Work more closely with researcher BEFORE the research is formulated”

Some very general comments about the overall quality of research were also made:
“Quality - Early review of research including justification - This must not suppress research however”

“Theoretically, DfT have a handle on the latter (quality of research) but only for work commissioned by them . . . Perhaps a board of assessors and monitors for formally ‘registered’ research projects would be an advantage to establish standards and offer guidance”

4.3 Reviews

As mentioned in section 4.1 there was a strong desire among some for commissioned reviews. This point was drawn out clearly when specifically asking about this matter:

“A mammoth task and even greater to sift through it. Initiatives such as the Campbell / Cochrane collaboration certainly help”

Echoing earlier comments about how road safety practitioners perspective can sometimes differ from those involved in (national) policy or researchers:

“I think DfT research digests are a good start, but need more of a key for practitioners”

This point needs careful reflection. It can be argued that essentially the same evidence base can serve very different needs, and accordingly the direction of a review can differ according to the user base. Consideration of issues around young drivers can focus on licencing (a national issue) or on work such as Pass Plus (local) or on issues such as in school education (both). What is undesirably is having to infer what the evidence might have said about a local issue based on a review meeting a slightly different need.

Nevertheless, in some areas national guidance was actively sought:

“I would need specialist assistance and would certainly advocate that a national lead on this would be appropriate”

but it should be noted with respect to this comment there are aspects in road safety which are quite tightly regulated by national regulation. Most practitioners seemed keen to “own” their own practice. Nevertheless, there were numerous comments asking for a single point of contact to produce reviews:
“Let someone who can be trusted do the investigation to what subject is required and use the results in the enquiry”

which is presumably what the DfT do when commissioning literature reviews. However, the perspective issue re-surfaces in some replied:

“Have some trusted work professionals to work as a group and take a series of topics each to cover a wide area of knowledge”.

In talking about “trusted work professionals”, this comment may or may not have referred to practitioners over researchers. The next comment certainly focused on the idea of using practitioners to conduct reviews:

“Systematic review must include practitioners to allow conclusions which have a wider audience for usability. Local review groups (possibly multi-authority or company) to ensure findings not mis-interpreted or used without caution where necessary”

4.4 Availability of research and signposts

Many views on research dissemination reinforced the feeling that participants could see a value in dealing with original research:
“It should be as wide as possible”

“Make publication free or web base them”

this is actually an issue which is currently being addressed by research councils in moves towards some form of open access publication. Extant DfT research is freely available.

In a similar manner:

“…rather a daunting undertaking to access what you need, when you need it. Perhaps a composite database …”

which is perhaps a fair point, as systematic reviewers have to search a number of databases and develop fairly specialised skills in doing so. A number of available indexing systems were demonstrated on the course (a variety of which are available within local government), yet a number of respondents indicated the wish for further cataloguing:

“Needs to be catalogued”

“There must be a way of creating some kind of library facility”

Some comments on referencing were quite reasonable from a practioner viewpoint, but ultimately rather optimistic:

“Scope for sensible usable referencing without need of specialist librarian facilities”

What is much more tractable would be following:

“List of completed research and also planned research that may be of interest to practitioners”

as this is something covered by the DfT in relation to their own research. It is possible to access similar information funded by certain of the research councils (ESRC) but this would be quite ambitious if considered in respect of all research funded by local authorities, charities, industry, research councils, DfT, Scottish Executive and similar agencies internationally. However, extant databases (Web of Knowledge, SCOPUS, PubMed) as well as TRL abstracts do go some way towards indexing the completed research.
4.5 Some other thoughts on dissemination

Finally, some comments were received on where else dissemination should be targeted:

“Chief Officers are a key target, as are motorists”

“Difficult to identify the target audience - even more difficult to ensure they see and read the papers. Who are the ‘customers’ in this process?”

It was too much for some:

“To be honest it’s too early to comment. This whole course has been interested and well presented but will need time to sink in”

5 Researcher produced summaries

A leading question was posed as to the desirability of researchers producing summaries of relevant research. This was asked in the awareness that the research councils are increasingly interested in public exposition of funded research and mechanisms for reaching stakeholders. In other words, there may well be some imperative behind such a move. The first point to note was that at least one respondent indicated an awareness of DfT’s current output in this area:

“Tempting, and DfT attempts this to some extent. If the summary could be trusted then yes, shortcuts are no bad thing if they start things off faster”

Some general comments indicated that such a move would be desirable:

“Yes I think that summaries should be produced mainly as it would help to skim read and to have an understanding albeit smaller, but some knowledge is better than none - also summaries are far easier to read / understand draw conclusions from”

“Yes, this would be very helpful”

“Yes, cutting down trawling by me”
There were a number of positive comments on the possible value of such a summary, including:

“I feel that data summarised in a user friendly form would be helpful”

“Yes. Practitioners do not have the time or resources to conduct complex searches”

“Yes, adequately categorised”

“Yes - it would help prevent re-inventing the wheel and free money for better quality or more detailed research to enable it to be more focused”

Two interesting comments were made relating to confidence, the first was more open ended:

“I would feel more confident if this happened”

but the second comment highlighted the risk that in being overloaded with relevant research, it is possible to miss the oyster containing the pearl:

“Yes, as a practitioner we do not often have time and facilities to research, therefore might miss the vital piece”

But again, comments were received indicating the wish for a practitioner input in such an endeavour:

“Yes but in consultation with practitioners”

“. . . but should be a team approach involving some appropriate practitioner input”

In talking about “relevant” research, the following comment may be relating to the type of research that has value for practitioners rather than developments in research methodology:

“This would be very useful, but would be time-consuming and costly and measures would need to be in place to ensure that their selection of ‘relevant’ research was not flawed”
However, difficulties with providing such a service were recognised:

“Yes, although the sheer logistics and workload of this probably won’t see it happen”

“Yes, but this is inevitably subject to practical limitations”

“This may be difficult to achieve and keep updated but would obviously be useful”

Comments were also received indicating that road safety shouldn’t necessary work in a vacuum in this regard

“Not road safety, but the use of the public realm including road safety. Road safety mush not be hived off as a self contained specialism, the issue is use, life, trade, socialising, beauty in a safe economical way”

6 Other users of research (campaigners)

“some will think that because an academic has produced it, it must be ‘spot on’ ”

Again, it was acknowledged that road safety practitioners occupy a public space where many people have the capacity to access and process the research base:

“Clear those people who are highly motivated to use research or elect elements of the findings as they add value for them, are most likely to gather information. The concern would be that sometimes the quality of dissemination is related to the level of sensationalism or effort of those interested parties, perhaps more than the significance of the findings”

Most participants were generally negative about the way campaigners use research:

“Well, they use it to fit into their own points of view when it suits them”

“No, they just pick and choose what bit of ‘evidence’ suits them”
“I feel that campaigners are often biased in who they ask in order to acquit answers they wish to receive”

“. . . research and data can be slanted to give you the answer that suits your cause”

“They only present what supports their position. They are too selective”

“No not all, they will always bias towards what they want us to believe”

“Certainly not, but why should we expect them to. They are campaigners after all”

“Experience on Safety Cameras shows extremely partisan approaches on both sides of the debate”

“Campaigners only use research that supports their point of view with little or no thought to the quality of research”

“they use it to their own ends - whatever fits their argument, or am I cynical”

“By their very nature, campaings will seek information to support their argument. The answer therefore has to be no”

“They are biased on occasions to meet local demands”

“Usually no, but they should use research at least to raise profiles”

“Understandably easy to latch on to a single phrase or finding which supports particular viewpoint. Researchers need to be more aware of this when drafting”

In response to a question as to whether campaigners use research in a balanced way:

“Absolutely not!”

“No, but I wouldn’t expect them to”
“No - they will only select data or part data which backs their claims”

However, there were allusions to the possibility that professional knowledge is in fact based upon campaigners:

“No I am aware of the full implications of research, I know that the campaign groups use one line from a 20 page paper. Which could easily give distorted views”

It was also acknowledged that campaigners do engage with research:

“Many try
Many would like to, but can’t for a variety of reasons
Many have no interest, unless it supports current policy
Many of not interested at all”

This is an interesting point. It would appear that a number of the experienced practitioners on this course had had very little engagement with searching for and interpreting primary research. It is quite possible that a number of campaigners “know” the research better than many practitioners. However, “knowing” the research, searching the evidence base objectively and appraising the evidence are not necessarily the same. This point was acknowledged by one respondent who shared the general view that campaigners do not use research in a balanced way:

“No, absolutely not. The ‘integrity’ of the profession lies more often in the commitment to the subject than the data on which our opinions are based. A more robust and professional approach is required”

And it was also noted that research output didn’t always help the situation:

“No, but don’t really blame them as some researchers produce poor and inadequate research that gets published. Just as there is no ‘right’ answer to problems there is no ‘complete’ research. Worse is practitioners not using research in a balanced way”
7 Rôle of professional bodies

Finally, some questions surrounded the potential rôle of professional bodies in terms of facilitating evidence based practice:

“I am sure there is, but not quite sure what”

Whilst many informal discussions surrounded the idea of body such as the National Institute for Health and Clinical Excellence, relatively fewer people committed to such an idea in this feedback:

“A NICE ‘what works’ body perhaps. Dermine if DfT can develop an association with Cochrane etc. and fund systematic reviews from the research budget”

And there were suggestions for a service which to some extent already exists:

“It would be good to have a body that looks at research on an annual or bioannual basis that then publishes a list of research”

“It needs an organisation without bias to list and library it all so that searches in a given area can either find what has been researched or that no work has yet been done”

“Produce lists of databases and . . . documents available”

The TRL produce lists of abstracts considered relevant, and the SafetyLit organisation was also pointed out towards the end of the course. Neither of these “lists” make any value judgements, although the DfT do produce reviews in some areas which should be of interest. Interestingly, the National Institute for Health and Clinical Excellence have published a couple of reviews which should be of interest, such as one on public health interventions to improve fitness which overlaps with much road safety endeavour.

One potential benefit from working via professional bodies is that it would facilitate communication between the road safety practitioner community and people involved in national policy and research:

“More contact with practitioners”
“Engaging with practitioners and improving the dialogue in any way would be useful”

Some not only felt that the professional bodies had a lot to offer but were able to identify a number of specific tasks they felt could be carried out by representative bodies:

- "Laymans guide with checklists etc.
- Info about research quality in general
- Emphasising the need for and importance of research / evidence based practice
- Champions"

Again, the diversity of the road safety profession is seen in some of the responses. For example, the Institute of Civil Engineers already publish their own journal, Municipal Engineer, yet publishing was a task identified by one respondent:

“Yes - a desire to be involved and willingness to publish relevant papers!”

and search tools and literature reviews was identified by another:

“They could carry out fundamental searches and have their own search tools on a library of relevant papers”

Some suggestions were made in response to a question about dissemination highlighting the potential rôle of extant professional associations:

“Through professional associations, technical journals and annual two day conferences”

“As suggested, organisations should periodically plug into professional websites and journals to gather information. Discussions or seminars could then be organised to discuss and shape policy and practice”

“Perhaps more reference to it when in contact with their members having checked quality and value”

26
However, a few comments were rather sceptical of the potential for professional bodies to get very involved:

“This largely depends on the costs of subscription etc. that doesn’t really qualify me to answer. Some of the papers we looked at were clearly written in ‘plainer English’ to appeal to a wider audience beyond academics”

“… but are they academically and financially able. Would this actually stifle research development”

“Yes (although this must depend on which body is being looked at)”

“Lots of professions have hidden agendas, or trade secrets that they do not wish to be made public. Therefore needs to be more open on research”

“Most professional bodies tend to be selfish and insular [,] protective of what data they have. Producing a summary of what they hold and being prepared to share it would be of use to all practitioners”

Some were not sceptical, as pointing to the need for grass-roots professional involvement:

“I’m not convinced - it needs professional members to get involved”

8 Some conclusions

• There was a near unanimous view that it was worth engaging with primary research at least once in your life.
  
  − A number of participants had clearly never done this, it did convert some to the potential benefits both in terms of providing information on road safety issues and making practitioners re-assess extant practice.
  
  − It was also suggested that feeling competent to deal with research made practitioners more likely to use research findings.

• It really did appear that on the whole, research is not routinely accessed by many road safety practitioners.
Conversely, a ready catchphrase used to preface many discussion was “research says”. It was never entirely clear what the origin of that research was, or how practitioners had become aware of it. It may well be that research filters into professional consciousness via the popular or trade press. The significance of this is that most participants expressed concerns about the way campaigners use research, yet they might rely on these very viewpoints in an indirect manner.

It really would have been useful to conduct the benchmarking exercises on this basis (i.e. to find out just where are people getting this “research says” knowledge from). It may be useful in the future in any evidence based forum to insist on some variant of “Chatham House rules” which insists that no-one can say “research says” unless they are prepared to identify the source of this knowledge.

There seemed to be a very limited routine awareness of the existing research base, or of ways of accessing it (the DfT literature reviews and TRL digests in particular seem like sources you would expect to be in routine use at grass roots level).

During the final session, a number of abstracting services and indexing services were mentioned, most local government should have access to some of these with some kind of librarian support.

There seemed always to be a preference for first hand access (via the internet) and in one case a clear desire not to have to use a specialist librarian was expressed.

One major issue which emerged is that practitioner and researcher focus are not the same.

This was expressed in a variety of ways, and there was some frustration at the perceived point of some of the research considered.

However, there was a consensus that the between practitioners and the research community should be closed in some way.

There was a clear desire for greater communication between research / policy and practitioners. There were suggestions that this could be facilitated by the professional bodies involved in the various professions.

It should be noted that high quality research which proposes a new method for studying a particular problem is of little interest to practitioners, conversely research of limited academic value which applies this methodology to a very specific problem or intervention could be extremely valuable. Perhaps there is
scope for a “journal of road safety practice” which would only publish work of acceptable academic standard that provides clear recommendations for action / inaction.

9 Following up the pilot course

Devon County Council are currently leading negotiations with the other “Beacon” Road Safety authorities to further progress the concept of evidence based practice as a central part of road safety professionalism. If successful this will lead to courses being run throughout England.

A report has been submitted to an Academic journal, and is currently being revised. A presentation was also given at the Parliamentary Advisory Committee for Transport Safety Autumn Conference (slides have been attached). It is intended to take a closer look at the impact this evidence based training may have in the workplace.

References


