OHS Practitioners: Proficient or Professional?

By Dr E C Wigglesworth FSIA

Pryor (2005) recently reported that "Those recognised as being at the top of their profession are not unanimous on the agreed behaviours and practices of a professional". This deduction from the information presented in her paper suggests that the Safety Institute of Australia (SIA) should be disturbed about that quite dramatic finding.

However, closer reading of that paper suggested that her finding may not be quite so devastating since it may be that the measuring instrument was not the most appropriate instrument for this task. That possibility is examined in this paper which then goes on to review the requirements for a professional organisation. It concludes that, whilst present training in Occupational Health and Safety (OHS) in Australia has made almost unbelievable progress in the past 50 years, it currently produces persons who are proficient rather than professional. In order for the SIA to make further progress in the development of OHS as a profession, three recommendations are offered.

Introduction

Over history, the word profession has come to have many meanings, commencing with "the oldest profession" (whose activities lie outside the scope of this paper). Generally the word profession is now applied to any occupation or vocation requiring some degree of learning or training. Thus a person may describe themself as a carpenter or a plumber by profession. Alternatively, a person who makes their living by an art that is also practiced at an amateur level (eg a musician, an actor or a full-time gambler), may term themself a professional. Specialists in a particular field also lay claim to this descriptor. Thus many of those competing at the forthcoming Commonwealth Games will describe themselves as professional sportspersons, whilst most cities will have lodging houses close to the theatrical district that structure their meal timetables to meet the needs of their theatrical clients whom they term "the profession".

In the context of the present paper, the word profession is applied to that group of persons who are engaged in an occupation that (a) has a monopoly of some extensive body of knowledge, (b) is taught at tertiary level, and (c) requires an exceptionally high degree of competence. The members of that profession play an important part in the well-being of their community since they, and only they, have the necessary high degree of proficiency to enable them to be able to apply this specialist knowledge. Two of the learned professions that are relevant to OHS are those of medicine and engineering. Comparisons with these established professions give some guidance as to whether the OHS speciality can yet be termed "professional".

Perhaps one of the most telling points was made by Ruschena (2005) who stressed the differences between medicine and OHS. He pointed out the degree to which each is organised and powerful, "No person is allowed to practice medicine without holding recognised qualifications and being registered to practice with his or her State Medical Practice Board". This is precisely the point made by Atherley and Hale (1975) who state, "Without control there is no possibility for the development of a clear and recognisable body." They identify three types of control; collegiate control, as generated by many of the medical Royal Societies; patronage, where some bodies attempt to proscribe the requirements for their members (Atherley and Hale cite the UK Institution of Industrial Safety Officers); and mediative control i.e. mediated by the State.

As a preliminary to the following discussion, it is important to distinguish between the individual practitioner and the practitioner's affiliated organisation. Without question there are many persons working in occupational health and safety at an extremely high level of proficiency to a point where their activities can legitimately be termed professional. It is quite another thing to apply that description to the practitioner's affiliated organisation which will include persons with varying degrees of skill.

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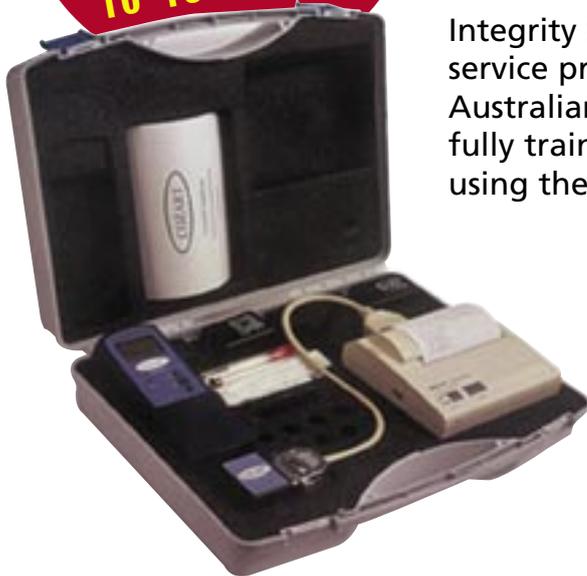
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Thirty-five years ago, David Klein, one of the great pioneers of injury control, writing of highway safety, pointed out that since medicine had developed a unified body of theory and practice over many centuries, both the public and its legislators listened to the physician with respect. He went on to say:

"So too in physics, in engineering, and in law, a body of theory and knowledge gave the professional a measurable competence which earned him the respect of the layman. The field of highway safety, by contrast, although it contains numerous professionals representing specific disciplines, has no corps of accredited professionals in the field as a whole, nor is there any recognised system of recruitment, training and accreditation." (Klein and Waller 1970)

Although Klein was writing in the context of highway safety in 1970, it seems reasonable to say that much of what he said then applies to the occupational health and safety field thirty-five years later in 2005.

The Measuring Instrument
The questionnaire cited by Pryor was compiled from the work of Kultgen, but no reasons for this selection are given. It is presumably from the book *Ethics and Professionalism* published by the University of Pennsylvania Press and written by John Kultgen (1988), a Professor of Philosophy at that University. The promotional material for the book states that this differs from most standard treatments of professional ethics and includes the following:

"He (Professor Kultgen) asserts that, by converting occupations into organised special interest groups, the professions serve some sections of the community at the expense of others, and disguise this self-interest under a false ideology of expert service"

This underlying Kultgen philosophy, vigorously promoted in his 408-page book, accounts for some of the items in this questionnaire. A good example is question 14, which suggests that a professional should "Practice the art of rational persuasion rather than assuming that they know best and pushing through their opinion on technical tasks or decision."

Whatever the merits of Kultgen's principal thesis – and not everyone

Safety Institute of Australia
CODE OF CONDUCT

Members of the Institute are bound by the Code of Conduct.
- Members shall give priority to the health, safety and welfare of the community in accordance with accepted standards of moral and legal behaviour during the performance of their duties.
- Members shall perform their professional duties with integrity, honesty and equity while adhering to legal principles and being within their area of competency.
- Members shall not engage in any illegal or improper practices.
- Members' words or deeds must not adversely affect the reputation of the Institute or the professional reputation of another person.
- Members shall fulfill the terms and conditions of their employment or contract and avoid real or apparent conflicts of interest.
- Members shall continue their professional development and therefore the development of the profession.

(as downloaded from the SIA site 13/02/06)

would agree with his assertion – the implications of this question are unfortunate. If a technical problem turns up in any area, the management decision to combat that problem should be based on the best available information. And that is the task of the person with the relevant skills in that area of technology. Thus the discussion on health problems should be led by a physician; on engineering problems by an engineer; and on safety problems by a safety specialist (see case study 1).

As an additional consideration, Pryor (2005) usefully highlights the items that correspond to elements of the SIA Code of Conduct (see table 1) and these are revealing. All of the 35 respondents agreed with question 13 (avoids conflict of interest, acceptance of bribes – even though these are two very different requirements).

One person considers proficiency irrelevant but this may well be not a rejection of the principle, but rather a quibble about the wording or interpretation of the question as is the case with question 10, "does not take on tasks outside area of expertise". That statement is hugely ambiguous. If it means that OHS practitioners should not venture into oceanography, finance or international relations, it is correct. But if it means that OHS practitioners should not venture outside the technology in which they now work (commerce, ceramics or construction) it is completely wrong. The OHS practitioner applies their OHS specialist knowledge to the technology of the occupation in which he or she works. In medicine, the same principle applies. The repair of soft tissue injuries follows

a similar pattern whether the injury is in the arm, the leg or the shoulder. So too, the basic OHS training enables the practitioner to apply their knowledge to a variety of occupations.

So there are (at least) two questions about the relevance of the measuring instrument used in this survey. Is there a better measuring instrument?

An Alternative
A more appropriate starting point for a discussion on professionalism may be deduced from the work of Abraham Flexner. This was originally presented at the National Conference on Charities and Corrections in 1915 (Flexner 1915). Entitled "Is social work a profession?" it was republished verbatim in 2001 (Flexner 2001). It is rare for a paper to stand the test of time for so long a period, but this achievement gives that contribution a strong claim for it to be considered as the classical reference on the criteria for defining a profession. The original question asked, "Is social work a profession?" and whilst that specific reference is outside the scope of this paper, the strength of Flexner's work lies in the six criteria which he identified as the hallmarks of a profession and which, in the view of this author, apply to the present discussion. They are that the profession is:
a) basically intellectual, carrying great personal responsibility
b) learned, being based on knowledge
c) teachable, in that its techniques can be taught in professional courses
d) practical, rather than academic or theoretical
e) having strict control of entry exercised by the profession itself

f) motivated by altruism, with professionals working for the good of the community rather than for personal reward.

The outstanding feature of these criteria is their emphasis on the educational standards and practices of the profession. Items a) and b) give heavy emphasis on intellect, learning and knowledge. In this regard it is relevant to point out that medicine has been taught for many centuries, and the syllabus is huge, ranging from anaesthesia and anatomy through immunology, microbiology and pathology down to Surgery and Urology. The OHS practitioner is less well supported as it is only since the second part of the last century that tertiary courses have been developed. Even then those courses have had to combat the legacy of those earlier programs developed by educationally unqualified groups and generally structured around some gimmick (e.g. the three E's of safety) that are mercifully excluded from today's tertiary studies.

Items c) and d) of Flexner's criteria point out that although professional training should be basically intellectual and learned, it should also be practical, rather than academic or theoretical. In the case of health and safety, the body of knowledge is not an abstract science, but an applied science, directed at the task of injury control.

The objectives of OHS education can be listed as:

i to provide men and women with injury-control skills

ii to encourage men and women to contribute new knowledge

iii to implant a scientific approach to injury control.

The first is training in proficiency. This depends on at least three assumptions. The first is that (a) there is a specific body of knowledge that is applicable to the applied science of injury control, and (b) that this body of knowledge can be taught and (c) that those who have been taught have an understanding of the field that differs significantly from the knowledge of those who have not been so taught. All three are here supported.

The second and third provide basic training in professionalism. In their careers, most safety practitioners will tackle specialised problems in their particular industry or process. If these remedies are not published in the literature, the same problem has to solved many times over. Not only is this a time-wasting exercise but it also means that the body of knowledge that underpins the professional task is deprived of those essential items of information that are required for continuing growth (see case study 2).

Hence the educational task is twofold; the first is to teach methods of solving original problems, i.e. the proficiency content. The second is to teach the professional task of contributing to the underlying principles and body of knowledge so that others may read, note, and where appropriate, apply them.

It is difficult at present to meet all three OHS objectives. Those who graduate from contemporary medical, engineering and law courses will have had to undergo a four-year or five-year full-time program with intensive written and verbal examinations. Most OHS courses are less than one year in duration, and are not full-time. This time-scale may be adequate to teach the injury-control skills (the proficiency content), but it is probably not adequate to meet objectives 2 and 3 (the professional content).

If a technical problem turns up in any area, the management decision to combat that problem should be based on the best available information.

This comment should not be construed as a criticism of the present educational arrangements. One of the features of employment in occupational health and safety is that there is rarely a career structure within an individual organisation, whether it be in agriculture, government, industry or commerce. In order to advance his/her career, today's safety practitioner may have to transfer from (say) commerce to the construction industry – with an entirely different set of risk factors. In those circumstances, it is highly appropriate that the basic training focuses primarily on the underlying principles of prevention so that the graduate can adapt those principles to whatever technology is in use by the employing organisation. How successful has this been?

The acid test of a profession lies in the extent to which that profession has contributed to the quality of life of the community that it serves.

Case 1: Who knows best?

Consider this scenario. The place is the PPE boardroom. There are three items on the agenda. The first is the possibility of offering anti-influenza injections to all employees; the second is a proposal to upgrade some of the company's elderly lathes in the light machine shop; the third is the safety performance of the newly-launched butchery equipment (see case history 2).

Looking at item 14 of the Kultgen (1988) table of professional characteristics, one wonders if, for agenda item 1, the medical representative should *"Practice the art of rational persuasion rather than assuming that they know best and pushing through their opinion"*.

Similarly, one wonders if, for agenda item 2, the engineering representative should *"Practice the art of rational persuasion rather than assuming that they know best and pushing through their opinion"*.

Finally, one wonders if, for agenda item 3, the safety representative should *"Practice the art of rational persuasion rather than assuming that they know best and pushing through their opinion"*.

OHS Education for Safer Workplaces

OHS education and skills development is a key component of the National Occupational Health and Safety (OHS) Strategy 2002–2012.

The national strategy recognises that Australia needs to invest in skills development to ensure there is an ongoing capacity to meet current and emerging OHS issues. Developed and implemented by the Australian Safety and Compensation Council (ASCC), the national strategy signifies the commitment of all Australian governments, industries and professionals to work cooperatively on national priorities to improve OHS performance and reduce workplace death and injuries.

To date, initiatives have focussed on the development of nationally consistent OHS guidance material for education authorities and employers involved in 'school-to-work' transition programmes. The ASCC also strongly advocates the sharing of OHS information and experience within education authorities and OHS jurisdictions.

The ASCC, in consultation with education and training stakeholders, is currently implementing a number of strategies to increase the level of OHS skills development within the school system, vocational and education (VET) and higher education sector.

Recently, the ASCC finalised a formal Statement of Relationship with the Department of Education, Science and Training (DEST) to embed OHS into VET. The working relationship is already showing productive results which include:

- Training and assessment requirements for the draft National Standard for Licensing Persons Performing High Risk Work,

- New draft qualifications for the building and construction industry (www.cpsisc.com.au), and

- Qualifications at the AQF IV to Advanced diploma level in OHS (www.ibsa.org.au).

Other initiatives include:

- Contract with Curriculum Corporation to develop guiding principles for OHS education in schools, and

- Development of the 'Safe Design for Engineering Students' resource package, providing high quality resource materials for undergraduate engineering lecturers and students.

For more information on priority national OHS Standards and Codes of Practice:

Visit: www.ascc.gov.au.
Email: info@ascc.gov.au
Telephone: (02) 6121 6000
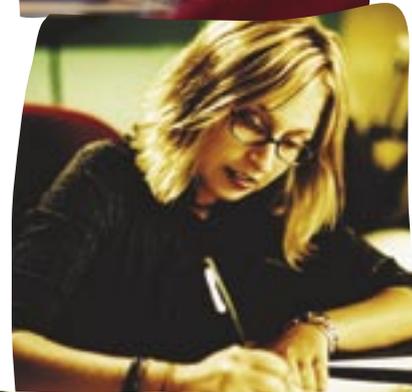
For inquiries and further information on workplace safety, please contact your local OHS authority:

WorkCover NSW	**WorkSafe WA**	**SafeWork SA**	**NT WorkSafe**
13 10 50	13 18 55	1300 365 255	1800 019 115
www.workcover.nsw.gov.au	www.safetyline.wa.gov.au	www.safework.sa.gov.au	www.nt.gov.au/deet/worksafe
Victorian WorkCover Authority	**Department of Industrial Relations QLD**	**Workplace Standards Tasmania**	**ACT WorkCover**
1800 136 089	1300 369 915	1300 366 322	(02) 6205 0200
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In that respect, it is relevant to examine the contributions of medicine, engineering and OHS to the quality of life in Australia during the twentieth century.

Professional achievements in the 20th Century

1 Medicine

The massive reductions in infectious disease during the twentieth century – including the almost total eradication of Tuberculosis – are so well documented as to need no further reference here. Instead, inspection of the public record shows that life expectancy between 1905 and 2005 increased from 55 to 75 for males and 58 to 81 for females, an increase approaching 40% for both sexes. That is a magnificent achievement by the medical profession.

2 Engineering

Today, it seems almost inconceivable that the only form of road transport at the turn of the twentieth century was the horse-drawn carriage! It was not until 1904 that Henry Ford sold his first motor car. And of course there were no aeroplanes. Engineering achievements have revolutionised transport.

Similarly, the hand-written letter has been replaced by the email on the one hand and instant world-wide television coverage on the other; electrical and other appliances are now available to tackle almost every domestic chore; whilst the size, power and efficiency of today's industrial production and process equipment almost beggars belief.

3 OHS

It may be thought premature to raise this question, since OHS activities are largely confined to the second half of the twentieth century. However it should be remembered that the first UK legislation was passed in 1802 and whilst, as implied by its name, (The Health and Morals of Apprentices Act), it was concerned with the protection of children it was also the precursor of the first Factories Act (1833) which further protected children and also appointed the first four factory inspectors. These four were the driving force behind the great 1844 Act which required dangerous parts of textile machinery to be fenced. And from that point onward, these accidents in cotton mills (for the Act only applied to cotton mills) were greatly reduced.

It is therefore appropriate to ask how the occupational health and safety community have built on that foundation in other areas of industry. Even accepting that the Safety Institute of Australia has been operative only in the second half of the twentieth century, there should by now be some indications of a reduction in the number of occupational injuries in Australia.

as a document entitled a "National Data Set for compensation-based statistics" (NDS). The title says it all. The NDS includes extensive sections on definitions, classifications, concepts and so forth and, admirable though those developments are, they do not address the basic scientific need which was, and still is, to provide a data set covering the entire labour force.

The acid test of a profession lies in the extent to which that profession has contributed to the quality of life of the community that it serves

That may well have taken place, but there are no data to affirm that suggestion. In this regard, the late unlamented National Occupational Health and Safety Commission has failed quite abysmally. One of the early steps in the conquest of any public health problem is the provision of an adequate data set. In simple terms, if we can't count, we can't control. In more precise terms, an early step in any public health program is the substitution of quantitative data instead of qualitative judgements. It is only after this step that an investigator is able to state that the subject of their study differs from others in a particular way, and is also able to state the direction and extent of this difference.

Given that the public health problem of occupational injury is now stated to cost $34 billion dollars, or 5% of GDP, (NOHSC 2004) the time is now overdue to produce accurate data that will underpin a more scientific approach to occupational injury control.

The first attempt to count the number of occupational injuries resulting in one week or more absence from work in Australia was published some 35 years ago (Wigglesworth 1970) and suggested a total of about 157,000. The study also pointed out that this was an underestimate of the true total since roughly 20% of the labour force was either employers, self-employed persons, or certain other groups (e.g. police) who were excluded from State-based compensation data sets.

The NOHSC contribution to this requirement, developed over twenty years, eventually emerged

There is more. The NOHSC Annual Report for 2003-2004 (NOHSC 2004 p8) states: "In 2002-2003, there were around 134,000 compensated injury and disease claims resulting in one week or more lost from work...The full extent of the incidence of work-related injury and disease, however, is much higher than these figures suggest. A one-off survey undertaken by the Australian Bureau of Statistics in 2000 estimated that the number of workers who experienced a work-related injury during that year was 477,800."

What an admission! The ABS estimate is more than three times that of NOHSC which plaintively suggests, "The difference in these data is that workers' compensation data does not cover some segments of the workforce, in particular, self-employed workers" (ibid). So, after twenty years of its unscientific administration, NOHSC finally rediscovered information known to the scientific community for the previous 35 years.

The ABS total includes 288,400 persons who did not receive compensation but who nevertheless suffered an injury. Even accepting that figure, the remaining total of 189,000 is higher than the 1970 study figure of 157,000. This gives no credence to any SIA claim for success in occupational injury reduction.

In the opinion of this author, this may well be due to the deficiencies in the methodology of the various collections. There is now an outstanding need to reintroduce regular comprehensive statistical data collections which will not only provide essential information for preventive purposes but will also provide evidence on how effective SIA members have been in reducing occupational injuries in Australia.

Case 2: Uniformity of solution?
PPE, the (fictitious) Protein Packaging Equipment Co manufactures food processing and packaging equipment. Its most recent product is designed for use in the butchery departments of the larger supermarkets where its output is equal to that of two members of staff, making it an attractive economic proposition. PPE recently sold twelve of these machines to several major supermarkets throughout Australia. Six weeks later one operator in each capital city (working for different companies) had, whilst using that equipment, received serious injuries requiring hospital treatment.

Medical management of the injury is likely to be essentially similar by all six treating doctors, even though they are working independently of each other. But what about safety management of the new equipment? There are three possible types of treatment:

- "*This is a dangerous machine and its use should be discontinued*"
- "*Modifications are needed to remove the hazard*"
- "*The operator was careless and has been reprimanded*"

In an ideal world, identical treatment of injury should be paralleled by identical treatment of hazard. In this particular case, will six safety officers, working independently of each other, produce essentially similar solutions? When this happens routinely, with each safety practitioner using his or her specialised knowledge to develop that solution and taking responsibility for it, then safety can claim professional status.

Those data should be routinely collected by the Australian Bureau of Statistics. The SIA should vigorously promote that requirement.

Without question some members are hugely proficient to the point where they, as individuals, can claim professional status. But, until we have some evidence of the beneficial contribution of the SIA to the Australian working community, that organisation cannot begin to claim professional status.

Summary
This has not been an easy paper to write. Sparked by the comments of Pryor (2005), and particularly by the criticism implicit in the statement that "Those recognised as being at the peak of their profession are not unanimous on the agreed behaviours and practices of a professional", this response has suggested that a different measuring instrument might well have produced a different response. Examination of an alternative measuring instrument based on the work of Flexner, here suggested as the classical work on professionalism, has however suggested a number of ways in which the Safety Institute of Australia (SIA) (but not its individual members) does not meet professional standards.

Pryor suggests that the time is now appropriate for a review of the SIA Code of Conduct. This author agrees and, to help that review, proposes that it includes three additional topics.

First is the need for a comprehensive data set to measure progress in occupational health and safety. Under Section 51 (xi) of the Australian Constitution, the Australian Bureau of Statistics has the power to collect statistical information on public health and in fact such tables were produced annually by the ABS before the unfortunate intervention of Worksafe. It may therefore be appropriate for the SIA to approach the Treasurer (who's Department has responsibility for the ABS) and to make the case for the ABS to resume that collection on a routine basis rather than on occasional surveys as was the case with ABS 6324.0 (ABS 2000).

Second, and in the interim before any new collection comes on stream, it may be appropriate for the SIA to ask the Editor of this publication to develop a Special Edition listing the

achievements of individual members. Such a list has been published previously (see for example Appendix 5 of the Woodhouse Report which lists 31 companies who reduced their accident frequency rates by up to 90% (Woodhouse 1974)). The difference here is that each contribution should not only quantify the numerical improvement: it must also describe the member's personal contribution to that improvement.

Finally, and as a quite separate strategy, the SIA might wish to ask the various compensation authorities to adopt a more pro-active role in prevention by employing their own practitioners in one or more industries. This would almost certainly result in better safety standards and, hence, fewer claims, in those industries. It would produce attractive career structures that would appeal to top-calibre personnel and it would ensure that innovations are directed at industry level rather than at the level of the individual organisation (and incidentally premium rate adjustment for companies adopting those recommendations would be a powerful inducement for their rapid acceptance).

Although this suggestion may seem novel to Australian eyes, there is an excellent precedent, dating back some thirty years. In 1969, the British Chemical Industry Safety Council (1969) wrote:

"American insurance companies have a much greater impact on industry than their British counterparts, if only because of the way that premiums are charged. Basic premiums are high, but certain companies offer very much lower rates to customers who are regarded as good risks. Before a customer is accepted by such an insurer, his entire operation will be examined in detail by trained inspectors to see if it comes up to the required standard. If it does not, the insurer will refuse to accept the business until certain specified improvements have been made. Often these improvements cost a lot of money, but the savings from reduced premiums is such that the potential customer is quite prepared to make the investment in order to obtain cover from the insurer of his choice. It seems to be a matter of pride to be accepted as a client by one of the high-reputation insurers.....

Once accepted for cover, any customer may be visited by an inspector at any time to ensure that the required standards are maintained. We are convinced that the activities of the insurance companies and their 8000 inspectors play a significant part in convincing US management that it pays to start being safe and to keep on being safe."

There is still a long way to go before the SIA can claim professional status

The precedent suggested by the British Chemical Industry Safety Council seems well worthy of bringing to the attention of the various State-based Compensation authorities.

In conclusion, it bears repetition that incredible strides have been made by the SIA in supporting education developments in the past half-century, and those achievements deserve strong recognition. However, whilst this is an excellent start, it is true to say that there is still a long way to go before the SIA can claim professional status. Hopefully, this debate, initiated by Pryor, will result in some further initiatives.

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