

**Benefits, Boundaries and Barriers:
Education and Training Challenges in the
Alcohol and Other Drugs Field**

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*It is not possible to teach others anything,
One can only help them to discover it.
Galileo*

Over the past ten years or so there have been major changes in the alcohol and other drugs field. Such changes particularly include a significant expansion in the knowledge base of the field and a concomitant shift to evidence-based practice. These changes have important implications on several fronts but especially in regard to issues surrounding professional practice, workforce development and information and skills transfer. For some time now, there have been concerted efforts in terms of education and training as the principal strategy to upskill frontline workers. Australia has made some significant advances in this regard.

This paper addresses the efforts that have been directed at improving the nature and quality of education and training in this area. It attempts to delineate some of the more evident efforts that have been undertaken and in so doing identifies strengths and weaknesses with various approaches, and notes emerging directions for the future. Successful models are identified together with some major overarching issues that are essential to address within the context of drug and alcohol education and training. At the most fundamental level, the questions are raised regarding whether the concept of education and training is broad enough to achieve what it is intended to and whether the traditional conceptualisation of education and training is, in fact, one of the greatest constraining factors with which we are faced.

Introduction

Alcohol and other drugs problems remain a prominent feature of the Australian social and political landscape. As in many other developed, and developing, countries the 21st Century sees us struggling to address AOD problems that are diversifying if not escalating. Drug use is an area of particular concern in Australia. This concern is held not just by the general community but also by many members of the health and human service professions. The strategies and technologies available to prevent and manage AOD-related problems are increasing in sophistication and over the past one to two decades there has been considerable progress in the development of effective treatments and interventions for substance abuse disorders. Increasing attention has been directed to the need to upskill the health and human services workforce to respond to AOD problems. The traditional response is to expand the education and training options. This response will be reviewed. And in this context, questions arise regarding whether this is sufficient, and if not why not, and what else should be considered.

Considerable effort has been directed at identifying efficacious interventions to modify lifestyle behaviours (especially those that relate to drug use). Far less attention has been focussed on disseminating these findings to front line service-deliverers and trainers. It has been further argued that methods to train health care

professionals in the most effective approaches to facilitate behaviour change are not well developed, some notable progress in the 1990s notwithstanding (eg Sallis et al., 1990; Rollnick et al., 1993; Sanson-Fisher et al., 1991; Schofield et al., 1994). Recent reviews of the impact of education on professional practice behaviour have often been disappointing (Ashenden et al., 1997; Davis, 1992; 1996; 1999). It is unclear whether this is a weakness in the interventions or a failure to accurately disseminate the interventions and adequately train the intervention agents or a problem at the implementation phase. Nonetheless, there have been calls for preventive activities to become an explicit, proactive component of quality clinical care (Kottke et al., 1989). Moreover, when behaviour change techniques are taught it is often in the context of mental health problems rather than from a broader, more widely applicable public health perspective. Concern about this deficit has become increasingly apparent (Rahman, 1996). Education and training is frequently urged as the most appropriate solution to the above dilemma (Powell and Pratt, 1996; Pyorala, 1996), especially as most professionals hold on-going education and training opportunities in high regard (Costanza et al., 1993).

Although greater emphasis has been placed on the need for health professionals to develop proficiency in areas such as behaviour change techniques, there still remains little published information about the effectiveness of various training programs undertaken to achieve this end. Until very recently, much of the literature provided little more than a rationale and description of the training program offered (e.g. Sallis et al., 1990; Ockene et al., 1990). Many of the studies which might be able to inform us about the effectiveness of educational programs in influencing subsequent clinical or practice behaviours are insufficiently rigorous in design or execution to be of value in drawing conclusions about causal relationships (Gorman, 1993).

Crosswaite and Curtice (1994) argue that the potential for the transfer of skills and knowledge in research generally is very underdeveloped. There is also increasing recognition that the process of communicating information about disease prevention and health promotion to health care professionals is not just a matter of disseminating printed materials. Moreover, there is a growing awareness that the type of dissemination strategy will effect uptake and sustained use (Salkeld et al., 1996).

The Current Situation at a Glance

The Training Impetus

There is growing appreciation of the need for health professionals to be well trained in the area of drug use and particularly illicit drug use. Evidence indicates that well trained practitioners can identify problems at an earlier stage and intervene more effectively. To date, however, efforts to train health and human services professionals in the complex area of illicit drug use have been largely underdeveloped, or sporadic at best. Some would argue that training of health care professionals, and other human service workers, has not kept pace with the advances experienced in the field over the past 10-15 years (Roche, 1998; Keller and Dermatis, 1999). While clearly there has been some considerable progress in this area, critics maintain that the advancements

achieved fall far short of what is required to make substantial inroads. Moreover, it is further argued that for significant change to occur in the AOD and related fields involved in addressing alcohol and drug problems, vastly more complex and diverse strategies than merely the provision of training courses are required (Roche and Cormack, 2000). At one level, there is a case to be made for a major conceptual shift away from the traditional and narrow confines of 'education and training' to a broader more widely encompassing notion of 'workforce development'. A workforce development perspective allows for consideration of many of the boundaries and barriers that are frequently encountered by those instigating education and training initiatives. These issues are explored more fully below in the context of the changes that have occurred in Australia over the past decade.

'Training' Within Wider Cultural Shifts

Australia has long been perceived as being 'anti-education'. Until relatively recently, Australia had a relatively low school retention rate and similarly low tertiary level (at least in terms of university level) participation rates. Important structural changes have brought about significant shifts in thinking about education and training. Some hold that 'the turning point was when we had the National Training Levy employers got into the habit of training and they saw a result' (Jasper cited in Laing, 2001). Laing argues that the tide has now turned and that there is increasing recognition on the part of employers that 'we live in a changing environment that if individuals don't join in ongoing training, they will paint themselves into a corner and risk becoming unemployable.'

It is therefore relevant to see the changes occurring within the alcohol and other drugs field in terms of education and training in the context of these broader cultural shifts in perception about the value and location of training in one's professional life.

Proliferation of Courses and Training Options

We have witnessed a substantial expansion in both the nature and quantity of AOD education and training opportunities available. This expansion has taken various forms:

- University graduate level training: most states now offer some form of university level specialised training in AOD. Such courses are usually intended for those currently engaged in the field in some capacity or other, ie they are in the form of ongoing professional training, and not usually offered as basic (eg pre-registration) training
- TAFE sector training, developed around specified competencies designated for various levels of performance, and often then used as an entry point to the above courses
- Short courses, which can vary from a semester in length and be either accredited or not through to very short courses (ie half to 2-3 days in duration). These can be offered by a wide variety of educational providers
- Integrated components within existing courses (eg subjects of parts thereof within standard undergraduate qualifying courses)

- In-house, on-site training. This is increasingly common in areas such as police, correctional services and perhaps to a lesser extent teacher training.

The array of training providers has also changed considerably. No longer are universities the principal providers at the tertiary level. The Australian National Training Authority (ANTA) initiated a number of reforms and a structure known as the National Training Framework. Three key features of the National Training Framework are:

- development of training packages
- national assessment arrangements
- Australian recognition framework.

The training packages are the most tangible and practical of the products. They are intended to be developed by industry and to incorporate standards and assessment guidelines endorsed within the Australian Qualifications Framework. They provide a model for the assessment of workers against the competency standards and the granting of a qualification at the appropriate level of skill. In many ways this contrasts with the traditional educational approach taken at university level. These changed perspectives are captured in Appendix I. “Traditional and Non-Traditional University Level Providers”.

For some, the overly heavy emphasis on training packages is also not the most appropriate way to tackle education and training. While attempting to standardise content, reflect industry needs and ensure minimum competencies there is the problem that a package is only as good as the writer and the teacher who finally delivers it. Moreover, difficulties have been reported in the conversion of curricula concepts into the final packages. A critical review of this approach is required to determine whether this is a satisfactory way to develop and deliver training.

In reviewing the advances made and barriers that exist to further progress, it is essential to keep in mind the diverse nature of the recipients for whom education and training programs are intended. They include (to mention but a few):

- protective care workers
- juvenile justice workers
- supported accommodation and assistance program workers
- youth outreach workers
- correctional service workers
- mental health services workers
- general practitioners
- nurses
- teachers
- student welfare coordinators.

As detailed elsewhere (Roche, 1998), it is not only the professional role or disciplines that need to be considered. It is also the level of specialised or generalist interest of a given individual that determines their training needs. For instance, workers can be categorised as:

Group A:

- a1. Non-AOD health professionals
- a2. AOD-specialist health professionals

Group B:

- b1. Alcohol and drug workers

Group C:

- c1. Non-health professionals
- c2. Non-health AOD specialists

Group D:

- d1. Volunteers

Hence, the training responses required to appropriately cater for the above range of groups, and the contexts within which they work, are diverse. Nonetheless, there has until relatively recently been a tendency towards the production of training programs and packages that are generic in nature. While many have wide scale suitability and applicability, not all are readily transferable to other settings. The emergence of frontline training initiatives supported by the Commonwealth Department of Health and Ageing Care provides a much needed alternative to generic training.

In terms of educational methods, there has only been limited critical review of the educational methodologies that are of known efficacy and that are best suited to different groups and different work settings. It is argued here that this is an area of major deficit and one that warrants close attention. Even then, well evaluated materials and programs are not always immediately transferable to other contexts and settings. Hence, determining the compatibility of efficacious products with the setting/s for which they intended to be used is of paramount importance. Appendix II. outlines seven key underpinning principles that commonly apply to AOD best practice programs.

Several key categories need to be examined. These include:

- training programs
- materials
- staff training needs and related issues
- infrastructure and organisational support
- accreditation
- continuity and sustainability (eg post service training)
- compatibility with other existing programs (at various levels)
- industry needs.

Lack of Co-ordination

As noted above, there has been a substantial increase in the provision of AOD training over the past 10 years at the tertiary provider level. Although, in having stated this, there is little definitive documentation of this significant development. Lack of documentation in itself is an important consideration. Without an adequate record of advances and progress made to date it is difficult to plan appropriately for the future, monitor and assess the progress to date, and ensure that new ground is being broken rather than duplication continually occurring.

Within Australia, no overarching mechanism has been developed to monitor and guide advances in AOD education and training. Such a mechanism, however, is currently under development by NCETA. To date, the various jurisdictions around Australia have largely relied on their own internal resources and networks or the informal exchanges that occur through pre-existing collegial relationships. While not wishing to diminish the importance of the latter, it is stressed that that is insufficient in and of itself to adequately advance the field.

What is pressingly needed is a system whereby programs, courses, resources etc that are developed, implemented and evaluated in various locations in Australia can be centrally recorded and appropriate information about the same be forwarded to interested parties. Such a mechanism would serve several functions. Firstly, it would minimise duplication and maximise the efficient use of the limited resources that exist in this field. Secondly, it would offer a device to assess needs (rather than individual jurisdictions having to repeatedly undertake training needs assessments).

Thirdly, it would provide an accountability mechanism through which the number of courses, the nature of their content and level of delivery could be monitored.

Taking a Step Back

Silos and Silences

A challenge increasingly articulated is not so much the need for more information, or new strategies or better clinical techniques – rather, the determination of the most effective means of utilising that which we already have available that is of known efficacy (Roche and Cormack, 2000). Pushing back the frontiers of knowledge has proved less difficult than disseminating the existing wealth of information at our fingertips (Roche, 1995). A task made more difficult, some would argue, by the atomisation of much of our knowledge base (Wilson, 1998) – or in current parlance ‘silos’. Not only are our administrative and functional responses to AOD issues constrained by ‘silo-like’ structures, so too are the knowledge and scientific bases which underpin these responses also contained within silos – albeit, discipline silos. Hence, it is not only integration of services that is often sought but also a better integration of knowledge domains.

Evidence-based Promotion of Best Practice

Beyond the current emphasis on evidence-based practice is the concomitant need for an evidence base to underpin promotion of knowledge uptake and best practice. Bero et al (1998) highlights how there are many different types of interventions that can be used to promote behavioural change among (healthcare) professionals and implementation of research findings, but that there are very few good studies to guide decision making in this area. Bero and colleagues identified only 18 reviews when they undertook a systematic review of the literature, and no reviews were identified that had been published prior to 1988. Thus, seeking the evidence base for ways to best disseminate current research findings and improve workforce practice is indeed a challenging task.

Bero et al's (1998) review also indicated that most researchers in this area fail to attempt to link their findings to theories of behaviour change. This deficit has been highlighted previously by Davis et al. (1995) who noted that there was no consistent theory, or set of behaviour change theories supported. Rather, findings were consistent with several different theories. Clearly, there is potentially a wide range of theoretical perspectives from which practice behaviour change can be studied, and to date no single theoretical perspective has been adequately validated by research to inform the choice of implementation strategies. Possible perspectives include: diffusion of innovations; education theory; social influence theory; management theory; marketing; and a rational (or epidemiological) approach. Thus far, there has been little articulation of the differing theoretical perspectives from which the area can be investigated. This remains largely untapped territory, and warrants future research endeavours.

Organising, Synthesising and Critiquing Information

Although there is a poorly established evidence base for workforce development, there remains a challenge for today's practitioner to manage the growing and often conflicting information available. The situation is exacerbated by the electronic ease with which one can now access information. Various strategies have emerged around the world in response to the exponential growth in information and the flood-gate opening created by the internet. We have seen the emergence of Clearinghouses. While not a new concept, Clearinghouses, have proved to be increasingly valuable in the AOD field. For example, the Canadian Centre on Substance Abuse recently established their 'Virtual Clearinghouse on Alcohol, Tobacco and Other Drugs' (www.atod.org). The internet-based virtual clearinghouse evolved out of the expressed needs of substance abuse professionals for access to high quality information about the nature, extent and consequences of alcohol, tobacco and other drug abuse.

Similarly, a new journal has recently been produced in Britain called Drug and Alcohol Findings. The journal was first published in June 1999. Its development is predicated on the view that "the real difficulty is helping those at the local level, translate the information on what works from findings into day-to-day practice." The journal offers information that is

“already prospected, mined, refined, polished and set in context” (Ashton, 1999).

Ashton (1999) argues that

“it takes an experienced and knowledgeable practitioner to weigh up the implications, consider ethics and practicality, and assess them in the light of other guidance and policy priorities.”

In the USA, the Association for Medical Education and Research in Substance Abuse (AMERSA), is the principal national organisation with a major focus on health professional faculty development in substance abuse. It is currently developing a strategic planning document to guide the improvement of health professional education on substance abuse, and is implementing a national faculty development program. The targeted professionals include allopathic and osteopathic physicians (particularly family physicians, general internists, and general pediatricians), chiropractors, dentists, nurses, nurse midwives, nurse practitioners, pharmacists, physician assistants, psychologists, public health professionals, social workers, and other allied health professionals.

Hence, there is a burgeoning growth in these types of more formalised, systematic responses to AOD workforce development. The field is moving well beyond the notion of the simple provision of short, or even more comprehensive, training programs. The organisation of information and the development of systematic strategies for workforce development are altering the face of our responses in this field. A principal area of interest is what is often described as ‘technology transfer’.

Technology Transfer

We know very little about the technology transfer process (Keller and Dermatis, 1999). The term ‘technology’ in this context is not limited to the use of computers and the like. Technology here is used in a broader, more traditional sense and is defined as thus:

“Technology: the science of the application of practical purposes; the application of scientific knowledge to practical purposes in a particular field (Keller and Dermatis, 1999).”

In the USA, a systematic response has been developed to address this deficit. The Center for Substance Abuse Treatment, SAMSHA, established the Addiction Technology Transfer Center (ATTC) National Network to improve understanding about how valuable effective technology transfer is to our field. There are now 13 ATTC’s across the USA and their vision statement is “Unifying research, education, and practice to transform lives.”

The preface to their recently released book, *The Change Book: A Blueprint for Technology Transfer* (ATTC, 2000), states:

“Although occasionally we like to try the new and different, on the whole, we humans resist change. We find comfort and a sense of confidence in the tried-and-true, in doing things the way we’ve always done them. Resistance to change is not just unique to the individual. The groups, institutions and disciplines that we are part of also resist change. They often create barriers, sometimes inadvertently, for those within their ranks willing to embrace change. Change is often seen as a threat to stability (ATTC, 2000, p1).”

Technology therefore, by definition, deals with the application of ‘scientific knowledge’ to practical purposes in a particular field. In other words the ATTC’s argue, technology deals with how we use the tools of our trade to do our job and it is the job of research to constantly examine and evaluate these tools and any innovations or additions that occur over time. And, since technology changes over time, we depend on research to continually examine and evaluate technology changes for us. The technology available in the AOD field allows us to ask and answer questions such as “how can we prevent or better treat clients?” or “is the outcome of this intervention better than another?” and so on.

Technology Transfer versus Training

Technology transfer, however, is not simply passing on ‘how to’ information to others – that is training! While training is one of the essential tools in the technology transfer armamentarium, it is not the only tool and not necessarily the most important.

In a recent review of interventions which promote the implementation of research findings by frontline workers, the Cochrane Effective Practice and Organisation of Care Review Group found that passive dissemination of information is generally ineffective in changing workplace practice (Bero et al., 1998). Most of the reviews indicated that only modest improvements in performance were achieved after interventions, and passive dissemination of information was generally ineffective in altering practices no matter how important the issues or how valid the assessment methods. The review found that multifaceted strategies were more effective than single strategies, and that effective interventions for promoting behavioural change among health professionals included educational outreach visits, interactive educational meetings (i.e. workshops involving discussion and practice) and reminders or prompts for behaviour change (manual or computerised). Strategies using audit and feedback techniques, key practitioners as opinion leaders and local consensus processes, were found to be effective if used in concert with other strategies.

On-line Education and New Technologies

It has been suggested that at the present time the real breach of borders is occurring between universities and corporations, between training and education, between universities and vocational colleges, between on-campus and off-campus learning experiences (Higher Education Series, 2000). One of the big shifts in the educational business world is towards corporate, virtual and for-profit universities especially in the USA. Many such institutions have capacity to expand their education and training

activities globally, and hence enter the domestic markets of other countries. This is of critical importance to Australia at the present point in time as government funding to universities has significantly declined over the past three to five years. University revenue is increasingly dependent on domestic fee-paying courses and international students, who may be tempted to stay in their own country and gain their education through on-line courses.

Corporate universities are global entities, with established telecommunications infrastructures, an avowed interest in retaining a highly skilled workforce with frequent re-training needs, and an expressed dissatisfaction with the skills produced by the formal education sector. As such they appeared well placed to challenge the hegemony of existing education institutions. In an environment of 'e-mania' they were (and are) seen as a threat. As aggressive global players they offer new education systems built not on bricks and mortar but in the electronic distribution of 'star professors' and performers potentially reaching hundreds of thousands of students worldwide.

Organisations that are dedicated to training as critical to core business admit that their education activities are fragmented because of geographical and cultural divisions, business product fractures, and the practical difficulties of shifting established work/learning cultures (Higher Education Series, 2000). They are embracing on-line training enthusiastically because of the 15-50 percent savings to be made in travel/per diem costs, not because costs are lower. In fact, costs are higher for on-line materials. Further savings for the large corporations can be made by piggy-backing education activities on existing infrastructure, such as satellite systems required for company communication. In the Higher Education Series report (2000) undertaken by Cunningham and colleagues, they found that large companies acknowledged that the best use of on-line training was for 'Just-In-Time' training, on-demand and desk-top delivered. Further they note that staff are resisting losing face-to-face training, particularly in the 'soft skills' (teaming, communication, problem-solving, networking) critical to the new business world.

Nonetheless, the pull of the physical campus remains strong (Higher Education Series, 2000), and the corporates' education methods are noted to be sophisticated and professional, situating face-to-face learning events as centrally developed core curriculum, located between on-line activities. The internationalisation of consumer products sweeps up in its path in manner of things – including education, and the technologies with which it is increasingly managed and delivered.

The Internet and e-Tech

'The ability to send hundreds of e-mails does not ensure the ability to write something intelligent or amusing.'

As we move into the 21st century the thing that will preoccupy, dominate and titillate us is technology, it will also change the face of many common forms of decision making and commercial, political and social interaction. This is especially the case in Australia where we seem especially enamoured with new technological advances. The internet and the World Wide Web will also become within the next two to three years a major marketing tool (Gottliebsen, 1999). The new millenium will see

technological change on a scale which is akin to the massive changes that occurred in the 1920s with the rapid introduction of electricity, telephones, and motor cars. Gottliebsen (1999) argues that all businesses will need to change their mode of operating to survive in these changed times in the next few years. It is entirely probable that the same may apply to education.

While communication and commerce will become more technologically determined and driven, it will, inevitably, also become more simplistic and erroneous. For example, see the concern over the lack of peer review process with material and articles posted on the internet (a recent example of this is the debate over purported Naltrexone deaths in Western Australia). So there will be increasing levels of information available, but much of it will be contradictory. There will be a low barrier threshold for information and its wide scale circulation. Lower literacy and skill levels will be required for the operation of electronic media, as much of it will be voice activated and will no require computing or key board skills for access and utilisation. The electronic access will also be via one's TV and kitchen appliances, in conjunction with PCs.

To illustrate the enormity of the scale in question, Yahoo (the search engine) currently has over 80 million customers and 65 million email addresses of customers. Their operating value is reported to be greater than that of General Motors. The whole new world of "Permission Marketing" will flourish and will diminish the amount of unsolicited junk mail appearing daily in one's letter box. Branding and brand labels will become increasingly unstable over the internet as brands can be established instantaneously. Product brands will be of greater importance and distribution brands of diminished significance. The content creator will hold greater status and power than the distributor or dealer (motor car retailers will largely disappear for instance). This will facilitate pro-active and targeted marketing in a manner and on a scale never previously envisaged.

Gottliebsen (1999) maintains that in this commercial explosion of the internet that the shift in power will be to the consumer and what may be anticipated is a greater demand for many goods. He further notes that to date the characteristic that has marked the commercial survivors in this rapidly changing electronic world has been 'nimbleness'. How nimble will AOD education and training (or indeed workforce development) efforts be in responding to the implications of these enormous and imminent changes?

It's Really About Change

Education is not that we know more, but that we behave differently.
John Ruskin

If the ultimate objective of any education or training program or activity is to bring about change, then greater focus should be directed to a) whether that end point is achieved, b) if not, why not and c) what else can/should be done to reach that end point.

The old adage below is well known:

*“Data is not necessarily INFORMATION
Information is not necessarily KNOWLEDGE
Knowledge is not necessarily WISDOM”*

But in the present context an important variation applies in that:

“Knowledge is not necessarily PRACTICE CHANGE”

It is important to note that training is not the driver of change, but an operational response to other change drivers which include workplace change, the introduction of new technology and quality assurance (Johnston, 1999, cited in Gore). In this sense, education and training is not an end in itself, rather only one means by which to achieve a particular outcome.

Some educationalists have also altered their position in recent years in regard to the potency of education. Fullan (1992) for example argues that approaches that focus on implementation only and record change as an ‘event’ not a ‘process’, are in themselves, limited. He further maintains that establishing an ongoing ‘climate of change’ is important. In the context of higher education teaching, Prideaux and Lyons-Reid (2000) hold that those who wish to promote change either from the top-down or bottom-up, would be well advised to provide the staff development and teacher maintenance required for ongoing acceptance and valuing of change, rather than marshalling forces for a single event – as change is a long term process. The advice here is particularly applicable to AOD workforce development efforts in the guise of education and training. That is, they are too often single, specific, one-off events. Greater attention is needed to support and sustain the systems and structures within which the professional practice behaviour is expected to be carried out.

Prideaux and Lyons-Reid (2000) further hold that what constitutes a ‘culture change’ is not clear, and that within educational settings there are few studies of culture change. They further argue that while educator maintenance and staff development can be put forward as the key to establishing a change culture, it is the nature of such maintenance and staff development that is really important. They recommend that it should be focussed on at least three major areas:

- staff should be able to understand the nature of specific changes and their relationship to wider developments and be able to gain insight into the role of staff in effecting change
- staff should be able to gain new skills they will need to carry out the changes, being assured that their existing skills and strengths are valued and can contribute to the new developments as appropriate
- finally, staff development should be oriented to an understanding of the findings on innovation in higher education.

To date, there has been little, if any, specific attention directed to the needs of the educators/trainers/change agents in the AOD field. Informal networks and personal support mechanisms are heavily relied upon. Greater emphasis needs to be directed to those at the frontline of training initiatives. Who trains and sustains the trainers?

Leadership

Finally, it is also about leadership. The pace of technological and social changes in the second half of the 20th century is such that it is widely acknowledged that innovation cannot take place without a desire for transformation. This desire for transformation expresses the vitality of any institution or system, whatever it may be. It is both the result of and a condition for the viability of social innovation. For innovation to occur successfully there are important roles for leaders and educators to play, especially in this field.

A Broader Conceptualism of Education and Training

The Process of Research Translation

In addition, high quality, evidence-based drug programs require a wide range of relevant community and policing agencies to have the knowledge base and skills to prevent and reduce drug related harm. This necessitates a timely and coordinated process of translation of the latest information and research into practice. This persisting conundrum is not unique to the AOD field. The medical sciences in particular have grappled for some time with what has been described as “the lacuna between research and clinical practice” (Smith, 1993) and have lamented the overly long delay between research developments and their application in the work setting. Partly as a consequence of this, there has been a ground swell of interest in supporting evidence-based practice as one strategy to achieve effective and efficient workforce practice behaviour.

A critical component for achieving best practice in responding to drug problems is development of mechanisms to translate the latest research findings and innovative developments into practical strategies for the enormous range of frontline workers in this area. Such mechanisms are essential if Australia is to have the best outcome for its enormous investment in health, welfare, education and law enforcement systems. But more importantly, it is now maintained that this translation process is insufficient to achieve change by itself; it must be augmented by other strategies which focus on encouraging the adoption of evidence-based practice in the workplace.

The multifaceted and staged processes involved in translating research into practice behaviour are outlined in Figure 1 below developed by NCETA as part of its current strategic plan. It is important to note that education and training comprise only a part of this model, taking equal place with ‘support strategies’ and ‘workplace structure and policy’. It is essential therefore when assessing the boundaries and barriers that surround our current education and training efforts that this type of more complex conceptualisation of the knowledge/practice transfer process is considered.

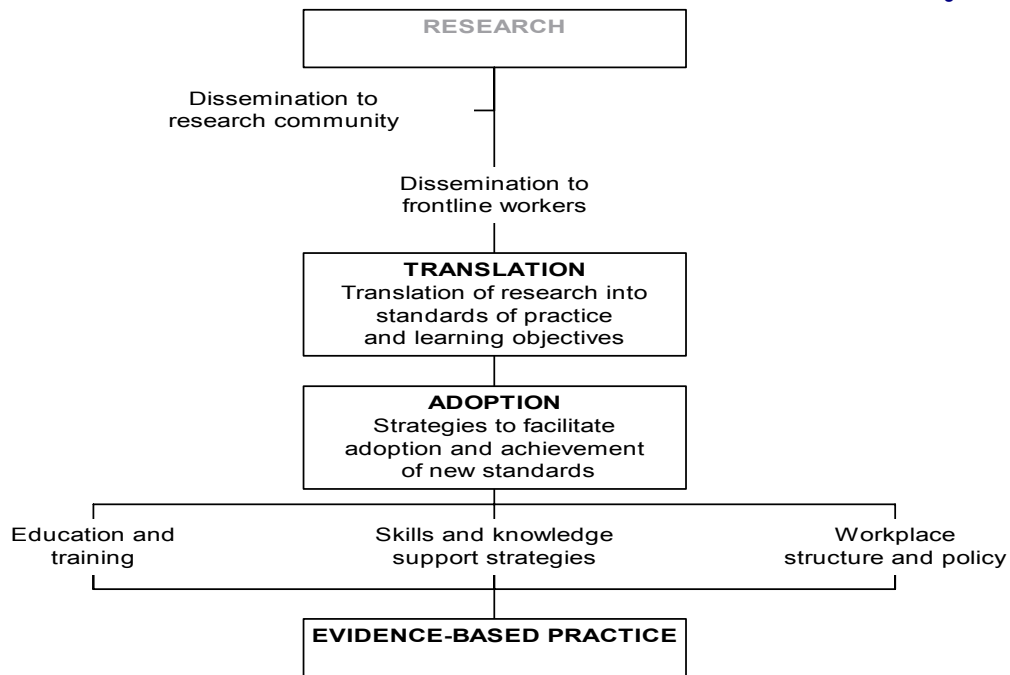


Figure 1. From Research to Practice: A Model of Change

The challenges are:

- to translate the latest research findings into practical responses which can be implemented by frontline workers
- to disseminate those research findings, and the evidence-based practice which is informed by them, in ways that are accessible to, and encourage adoption by, frontline workers and policy makers (who have limited opportunities to access and read the academic literature or reflect on how those findings may inform practice).

The process of dissemination is therefore a two-fold one, focusing on the translation of evidence into practical responses for frontline workers, and the adoption of new practices in the workplace. The process of achieving adoption is by far the most difficult.

Workplace structures and policies also have a significant impact on the likelihood that appropriate responses to drug issues will occur in the workplace. Factors such as resource allocation, management priorities, policies and guidelines, work incentives (including pay levels), performance monitoring systems and job specifications, are legitimate and necessary targets for those engaged in effecting work practice change. It is therefore important to focus on the full range of factors which affect work practice, including:

- education, training and workforce development strategies which address knowledge, attitudes and skills
- support strategies for skills and knowledge (eg information systems, mentoring, discussion opportunities, research)
- strategies to effect workplace structure and policy (eg incentives, performance monitoring systems, job specifications, resource allocation, management priorities).

Summary

This paper has canvassed a broad array of issues as they pertain to AOD education and training in Australia in the 21st century. Considerable progress has been identified over the past decade with substantial achievements noted in terms of increases in the provision of tertiary level courses, expanded diversity in the types of programs offered, flexibly designed and delivered courses increasingly available, and greater levels of overall professionalism achieved within the AOD field. Moreover, there appears to be a growing consensus in regard to best practice in the field – at least in terms of the principles and criteria for best practice, if not the actual operationalisation. Application of evidence-based principles also appears to be gaining ground, again in theory if not in practice. And, finally the field is better resourced than ever before with screening instruments, intervention packages and aids, educational supports, best practice guidelines (eg for police and indigenous AOD problems to note but two examples) and so on.

But in light of this not insignificant progress, there are important barriers to progress that are important to highlight. Some of these barriers include the external imposition of prohibitively high fee structures by cashed-out universities. The end result of this may well be the proliferation of excellent courses around the country that only a few well-off individuals and organisations can afford to purchase. The lack of co-ordination and imposed competitive regimes that operate across tertiary providers means an inevitable waste of limited resources in this area. The ‘silo’ structures in which most of us operate make it difficult to share ideas, resources and overall progress.

Other factors which impede progress include the lack of a substantial evidence base from which to guide and develop education and training efforts (eg does on-line education really work?). There is a need to expand our conceptualisations of education and training as the primary vehicle through which professional practice behaviour change will be achieved. A much broader vision is required if we are not to be continually hamstrung in our efforts. The broader vision entails a workforce development perspective. It necessitates inclusion of factors related to the systems and structures within which individuals work. It examines the workplace cultures and constraints that can either facilitate or impede developments in relation to AOD concerns.

For each of these barriers outlined above there are some self-evident solutions some of which are well within our reach and only require imagination and action!

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Appendix I: Traditional and non-traditional university level providers

Traditional Characteristics	Non-traditional Characteristics
The university exists for the personal development and professional preparation of students; conservation, dissemination and extension of the discipline; and for social and intellectual critique	The university exists as a business for the professional and vocational education and training of its customers
'Full service organisation'; single campus, residential or commuter	Disaggregated service/support functions; distributed in small multiple campuses or electronically
Autonomous faculties	Managed functions
Selective	Mass
Comprehensive curriculum	Specialised curriculum
Accreditation	Accreditation
Student issues	
Students as apprentices, though increasingly learner earners, mostly school leavers, with large public subsidy	Students as customers, earner-learners, mostly mature age, paying full fees
Staff issues	
Academic staff are full-time teacher-researchers, career academics	Staff are practitioner-teachers, part-time, career professionals in other fields
General staff are specialist administrators or librarians	General staff are administrators, marketers, advisors OR involved in the teaching/learning process, including online designers and librarians (if employed at all under disaggregated model)
Integration of teaching process – teacher is curriculum developer, teacher, advisor, assessor	Disaggregation of the teaching process- separate centralised curriculum developers, teachers, advisors, markers
Learning	
Just-in-case; just because	Just-in-time
Set-time course	Exemptions for prior learning, including work experience
Large scale teaching at undergraduate level	Intensive small class teaching
Theoretical	Practical
Vocational preparation	Lifelong learning

Note: Contemporary universities may be anywhere along a continuum between these poles, and the same university may be at different points in any field.

Source: *Higher Education Series, 2000*

Appendix II: SEVEN Underpinning educational precepts of training programs

1. Principles of Evidence-Based Practice	The course content, as with the program overall, are based on the principles of evidence-based practice. That is, aetiology, assessment and intervention strategies reflect current state-of-the-art knowledge and best practice.
2. Adult Learning Principles	<p>Education and training principles appropriate for experienced professionals. Key factors which define quality education programs and which facilitate the transfer of knowledge and skills into practice include:</p> <ul style="list-style-type: none"> • Basing methods on adult learning principles • the use of experiential and participative learning strategies • linking course content with trainees' previous experience, learning and skills and with their usual work role • ensuring practice is underpinned by theory • using methods which encourage trainees to be responsible for their own learning and which will enable them to translate new knowledge and skills into practice • providing post-training support, supervision and practice • linking education to support in the form of leadership and championship which legitimises the practice of new knowledge and skills in the work setting • rewarding course participation (eg accreditation) • capitalising on strategic opportunities (eg the interest of key change agents) • high quality and well resourced programs (in terms of staff and materials) • offering content which is under-pinned by the best available evidence (ie based on empirical data of consensus about quality practice) • relating the program to accepted standards • making it relevant to the job role of participants • providing flexible delivery strategies to enhance access • ensuring provision of post-training support and supervision
3. Skills Development Orientation	Course are often oriented towards skill development. It is noted that an important criticism levelled against much drug education and training is insufficient attention directed towards skills development.
4. Delivery Mode	<p>Evidence supports use of several different delivery modes packaged in a variety of formats to allow for different delivery formats. The three main delivery formats are:</p> <ol style="list-style-type: none"> 1. Face-to-face delivery 2. Self directed learning using a paper based instructional

	<p>modules and optional tutors,</p> <p>3. Electronic delivery using a web based package.</p>
5. Training Tailored by Specialty and Context	<p>Selected training experiences for practitioners working in different settings and with different professional backgrounds and primarily designed to cater for the needs of a given group. Such programs need to be flexibly structured so that different components of a program can be tailored to groups' needs.</p>
6. Tiered options	<p>The training packages often comprise a series of modules. Modules will form self contained and independent learning units, which can articulate with other modules in the package. Modules are often categorised as</p> <ol style="list-style-type: none"> a) core b) optional or c) technical speciality
7. Ongoing education and training	<p>It is an accepted educational principle that one-off or short term training experiences that lack options for reinforcement, consolidation of learning and options for ongoing training and support are likely to be less successful than more integrated training experiences. In order to be effective, training packages need to be backed up with access to consultancy/supervision as learners are putting their knowledge into action.</p> <p>Strategies and options to maximise the impact of the short training courses include:</p> <ul style="list-style-type: none"> • Ongoing support systems • Consultancy service • Further integrated training experiences • Establishment of networks and mentoring schemes • Network newsletters and updates.