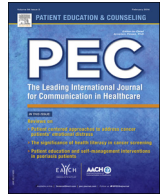




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# Good practice in school based alcohol education programmes

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### ABSTRACT

**Objective:** To identify elements of good practice in designing and delivering alcohol education programmes in schools.

**Methods:** Literature reviews and published programme evaluations were used to identify key elements of good practice.

**Results:** Principles of good practice are identified and discussed. Five main issues are highlighted: choosing a universal or targeted approach, the need for theoretical frameworks, adopting a stand-alone or multi-component approach; issues of delivery and programme fidelity, and balancing programme fidelity and cultural relevance.

**Conclusions:** Programme objectives, programme fidelity and cultural context are important factors in designing programmes and will influence outcomes and evaluation of success.

**Practice implications:** In developing alcohol education programmes, there is a need to draw on the evidence and experience accrued from previous efforts. Programme development and implementation can draw on results from evaluated programmes to design alcohol education programmes suited to specific contexts, the availability of resources, the perceived needs of the target group and the problem to be addressed.

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## 1. Introduction

### 1.1. Aims and key questions

The conclusion emerging from past reviews and emphasised by many public health advocates, is that alcohol education is ineffective as a means of preventing or changing young people's alcohol consumption [36,2]. However, later reviews have challenged the claim that these programmes are ineffective (e.g. [31,25,17]).

This paper aims to:

- consider the role of education and, in particular, how 'success' is defined in assessing alcohol education programmes,
- raise questions regarding what constitutes 'good practice' in alcohol education,
- identify core principles of 'good practice' to inform the development and implementation of school-based alcohol education.

Key questions such as 'what can be expected of alcohol education', 'what is effective alcohol education', 'how is it

measured', and 'what do we mean by good practice', are considered before presenting insights from the published literature and concluding with suggestions for principles of 'good practice' in developing and implementing alcohol education programmes in schools.

### 1.2. The role of education and the measurement of success of alcohol education

'Education' about alcohol can occur in many ways—through observation of parents and peers from an early age, through exposure to media representation, through public awareness campaigns, and in schools—learning about alcohol is no different than learning about anything else [34]. This paper concentrates on learning through formal educational activities in schools. As one of the four main pillars of socialisation (along with the family, the media and the wider community) there is a clear rationale for delivering alcohol education in schools both to prevent the onset of harmful drinking patterns and to identify and respond to harmful drinking when it occurs.

Expectations about alcohol education in schools are often based on the assumption that it is the role of alcohol education to influence (and change) behaviour in a particular, desired direction. This assumption lies at the heart of disagreements about the effectiveness of alcohol education and emphasises the

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socialisation function of education. But education is not solely concerned with socialisation. In discussing the role of education [3,4], reminds us of its different functions—qualification, socialisation, individuation (i.e. the ways in which education contributes to human freedom) and notes that the weight accorded to the three functions is important. His work highlights the risk that although the three functions overlap, socialisation may become the dominant function with the emphasis on the kind of person that education should 'produce' at the expense of providing opportunity to question, challenge or pose alternatives and enhance individuation. This broader framework of educational theory and philosophy is important in considering more specific forms of education. In the case of alcohol education, it could be argued that the socialisation function is uppermost and that this influences programme aims and outcomes and how outcomes are measured.

Alcohol education for young people has largely been concerned with targeting behaviour. Outcomes of intervention vary between programmes but behaviour change is generally measured as: no use, delayed onset of use, or significant reductions in use. Impact (effectiveness) is measured soon after the intervention ends and at variable periods thereafter [17]. Programme outcomes other than behavioural—such as knowledge and skills acquisition or preventing harm (defined in a variety of ways)—are usually seen as secondary and achievement of such goals as less successful outcomes of educational effort than the achievement of the intended drinking (or non-drinking) behaviour (e.g. see [18,16:10]) illustrate this point, 'Ineffective interventions were regarded as those that had no statistically significant influence on subsequent self-reported drinking behaviour'.

Recent research suggests the need for analyses that can disentangle the complexities of alcohol education approaches and distinguish between the range of outcomes which might be expected from alcohol education activities. As ([25]:103) comment,

... school drug education has generally not been that successful at reducing alcohol or other drug use ... (which) ... raises the question as to whether the effectiveness of school drug education should be measured by abstinence or reduced use, or whether harm reduction is a more realistic and useful measure of success.

At the same time, even where a goal of harm reduction is accepted, only successful socialisation is seen as an effective result, ignoring any gains made in the spheres of qualification and individuation. Clearly, the socialisation function—influencing, changing or modifying behaviour—lies at the heart of alcohol education programmes. However, the approaches and methods needed to achieve the desired behavioural outcome often depend on paying attention to the qualification and individuation functions of education, for instance, by ensuring that children have adequate and appropriate knowledge and skills to resist or make informed choices about drinking.

### 1.3. What is 'good practice'?

What is meant by the term 'good practice'? If we equate 'good practice' with 'best practice', the definition developed by the European Monitoring Centre for Drugs and Drug Addiction (EMCDDA) is applicable to intervention in alcohol consumption. The definition states that,

Best practice is the best application of available evidence to current activities in the drugs field.

- underlying evidence should be relevant to the problems and issues affecting those involved (professionals, policymakers, drug users, their families);

- methods should be transparent, reliable and transferable and all appropriate evidence should be considered in the classification process;
- experience in implementation, adaptation and training should be systematically collected and made available;
- contextual factors should be studied by modelling different prevalence levels so as to assess the impact of an intervention on the population; and
- evidence of effectiveness and feasibility of implementation should both be considered for the broader decision-making process.' <http://www.emcdda.europa.eu/best-practice/about>

Translated to alcohol education, 'best practice' would entail a number of development and implementation steps: conducting formative research to assess the problem, the environmental and situational context and the resources available and needed to respond to the problem; developing initiatives which use the available evidence and assess its relevance to the problem and the target group(s); taking account of the realities (experience) of implementing educational interventions; considering the effects of an intervention on different social groups and the cultural relevance of the programme; considering the effectiveness of the intervention.

## 2. Methods

There is a large body of literature on school based alcohol education programmes. Evaluation studies come mainly from the USA with some research stemming from the UK, Australia and Europe and very little from elsewhere.

The following sections of the paper are based on an overview of the issues emerging from systematic and thematic reviews of alcohol education programmes published in English since 2000. In addition, the paper draws on themes emerging from primary studies reviewed for the development of the International Alliance for Responsible Drinking (IARD) (<http://www.alcooledguide.org/intro>). As part of the IARD project, the review team drew up selection criteria for inclusion on the website of programmes which provided examples of 'good practice'—or which illustrated some aspects of good practice. To be included programmes had to have: a longitudinal or repeated cross-sectional design that included experimental, quasi-experimental or structured single-group designs with pre- and post- test assessments; outcome evaluation to test changes in knowledge/attitudes/beliefs/intentions/behaviours; measurable impact showing change in the desired direction (distinguishing statistically significant from non-statistically significant change); good documentation.

## 3. Results

The following sections consider five key elements of good practice and provide illustrative examples.

### 3.1. A universal or targeted programme?

Delivery of prevention programmes has been characterised as universal (delivered to everyone in the target group), selective (aimed at vulnerable or 'at risk' population groups, such as people living in deprived communities) or indicated (individuals showing signs of engaging in high risk behaviours such as truancy or trouble with the law). Decisions about whether to develop a universal or targeted programme depend on many factors: available resources, perceptions of the problem, the situational context, the extent to which schools or pupils may feel stigmatised. The integration of alcohol issues into wider health or lifestyle programmes is one possible solution, especially to the problems of stigmatisation and

poor engagement. Although sometimes alcohol, drugs and smoking are addressed in the same programme, alcohol education is less often embedded in general health programmes.

### 3.2. Theoretically informed

There is considerable value in drawing on theory to develop, implement and evaluate programmes. Theoretical models of behaviour, for instance, can help identify underlying factors which may influence behaviour—such as peer influence, parental behaviours, environmental conditions; theories of change can suggest how behaviour may change and be changed [10]. Both types of theories are important for educational programmes but, as ([10]:1) comments,

..an understanding of behaviour alone provides insufficient clues on which to base effective processes for changing behaviour. Theories of change suggest intervention techniques which can be effective in bringing about change, as well as broad approaches to intervention design, implementation and evaluation which can underpin effective policy planning and delivery.

Alcohol education programmes need different theories at different stages of development, implementation and evaluation. Although not all programmes are theory based, a variety of models of behaviour and theories of behaviour change underpin many educational programmes—some regarded more favourably than others. For instance, while information giving is part of most programmes, this tends to be linked to a 'deficits' model—something lacking in the target group or individual—and is largely discredited as effective on its own. Psychosocial theories are considered to inform the most effective approaches [5] and underpin contemporary prevention programmes that focus on teaching social resistance skills, normative education and competence enhancement. Meta-analytic studies have found that some of the most effective interventions are those that combine social resistance skills and competence enhancement approaches [5].

The 'social norms' approach is one example of a psychosocial theory informing intervention and has gained popularity in recent decades. It aims to counter misconceptions regarding alcohol consumption by peers and seeks to bring behavioural and/or attitudinal perceptions into alignment with the 'actual' use and attitudes of peer groups. The evidence from social norms studies—mainly with college students in the USA—is that the approach can be equally effective in European and Australian contexts [21]. In 'The Social Norms Analysis Projects' (SNAP) carried out in schools in rural areas in Australia, self-report data were used to identify misconceptions and develop school specific messages that focussed on stating the positive behaviour of the majority and avoiding negative content or scare tactics. In one project, the intervention group reported a significant reduction in drunkenness compared to the control group and a reduction in misperception of perceived frequency of drinking and drunkenness ([21]:84), comment that, overall the projects did not bring about large behaviour changes within the time frame of the study but that the social norms projects,

..demonstrate that behaviour change must first be pre-dated by perception change, as witnessed in both the UK and Australian projects, and that mass behaviour change will only occur after several years of sustained social norms campaigning.

In sum, there is general agreement that it is important to use theory as well as available evidence to inform the development of all stages of programme development. A more detailed discussion of the range of theoretical frameworks that inform alcohol education programmes may be found elsewhere [10].

### 3.2. Stand-alone or multi-component programmes

The inclusion of a school-based education component in multi-component programmes has been noted as key to reaching young people and often school-based delivery is at the heart of the multi-component effort (e.g. Project Northland, [27]). Most commonly, other components are peer education, parent involvement and community engagement. Peer education is based on theories of social influence, social learning and inoculation and on the premise that peer influence may be stronger than teacher or parent influences at some points in a child's life. Community involvement is informed by theories of availability and access to alcohol, flagging up the importance of the wider environment and the possible advantage of programme components that include, for example, trade and police collaboration to reduce the sale of alcohol to under-age youngsters or youth services collaboration to provide alternative alcohol-free leisure activities. The drive to engage parents has resulted in both the inclusion of parent components as part of school-based education programmes and the development of parenting programmes which address alcohol consumption but also address a wider range of associated problems, including poor communication skills [28].

The value of components added to classroom-based delivery is contested. [22] suggest that evidence supports the use of classroom-based programmes over comprehensive programmes because they are cost and time-effective and require less external expertise, and because it is not possible to assess the value of individual components within a multi-component programme. Other research supports the inclusion of 'parenting' components, in particular.

Programmes such as 'Strengthening Families Programme' which are the core of the intervention rather than an added component (but include school collaboration) have been assessed as promising [1,35,17]. Parenting programmes are based on the premise that parental influence continues, even if weakened by peer influence, into and beyond the teenage years [9]. Although initially intended for universal implementation, often these programmes are delivered selectively, the emphasis being on poor communities or problem families. They rarely focus solely on one substance and usually include general relationship factors such as communication and anti-social behaviour—so they offer a good example of an integrated substance use/health/social approach. The findings of one systematic review illustrate the nature and outcomes of these programmes.

The review [28] included 46 reports on 20 studies—RCTs, controlled trials, and controlled before/after studies; 5 on alcohol alone; 10 on a combination of substances. The programmes aimed to prevent or reduce substance use among young people under 18 years old. Most studies took place in the USA. Parenting interventions varied, including, parenting skills training, homework tasks requiring parental involvement, booklets mailed to parents, home visits and home based facilitator sessions. Interventions were categorised as those which: (a) identified and addressed pre-cursor behaviour in primary school children; (b) focussed on transition between primary and secondary; (c) focussed on adolescents. The outcomes were variable and reflected the impact of a wide range of factors on achieving the desired results. For instance, one primary school study found a significant reduction in alcohol use and misuse for children with no prior use; but a significant increase (4%) in use and misuse by children drinking prior to intervention. Three alcohol specific programmes targeted at transition students had different outcome findings: one showed a significant reduction in use (13% less initiation and 16% less use in previous month) at 3.5 year follow up; one did not show any significant effects; the third found a significant reduction in mean alcohol use in one school but not in another.

There are many reasons why outcome differences may occur—the primary school study mentioned above, for instance, indicates the importance of pre-intervention drinking status. Foxcroft and Tsertsvadze [17], in a review of 12 trials evaluating universal family-based alcohol misuse prevention programs in young people, noted the following: the outcomes varied with respect to their definition (e.g., lifetime alcohol use, heavy weekly drinking, mean number of drinks, proportion of alcohol users, weekly drinking, frequency of alcohol use, alcohol initiation, lifetime drunkenness, alcohol composite index), and the period to which they pertained (e.g., past month, past 7 days, past year, ever). Thus, individual characteristics, circumstances and lifestyles, parental background, environmental factors, the definition of the problem and desired outcomes may all contribute towards the outcome and perceived success of the programme. All need consideration in initiating new alcohol education programmes.

Despite the variable results [28], conclude that the evidence is sufficient to support parenting programmes as an effective approach in reducing substance misuse. Key features of successful programmes appear to be that they:

- Emphasise development of social skills and sense of personal responsibility
- Include active parental involvement
- Have a focus on maintaining (building) family relationships and communication
- Focus on issues other than substance use (as well as including substance use).

### 3.3. Delivery and implementation fidelity

Clearly, there is enormous variation regarding delivery issues: who delivers the programme, what is delivered, how much is delivered. Dosage is important although deciding the frequency and duration of exposure depends on the programme aims, methods and on practical factors such as cost and available resources. What is generally agreed is that 'booster' sessions or programmes delivered in phases are more likely to sustain positive outcomes. Who delivers the programme and how it is delivered (programme fidelity) are discussed briefly and then an example of one large European study, 'Unplugged', is given to illustrate what might be delivered.

In classroom contexts, interventions delivered by adults other than teachers have been assessed as ineffective. A review by [18] identified nine classroom-based programmes taught by external contributors, including adult health educators, uniformed police officers, research project staff, college age instructors, certified school psychologists and Life Education Centre staff. The majority of the programmes identified had inconsistent effects on alcohol use and only one culturally tailored programme for Native American students demonstrated evidence of medium- to long-term effects.

The peer approach, although frequently part of programmes, has been subject to considerable criticism and there are many methodological and implementation issues which make the assessment of effectiveness difficult [24]. Mellanby et al. cite one study Perry et al., 1989, carried out in four countries, which found no difference between peer and adult led groups in knowledge or attitudes. On the contrary, research by Botvin et al. (1984, 1990), cited in [24], which evaluated an intervention aimed at substance use by school pupils in New York, found that peer led groups reported less drinking and showed greater increase in knowledge about alcohol than adult led groups. Although the evidence is weak, the conclusion from Mellanby et al. review is that

peer led intervention may result in more positive changes in health behaviour than adult led intervention.

In considering the success of interventions, implementation fidelity—delivery of the programme as intended by those who developed it—is important. As ([8]:1) contend:

It is only by making an appropriate evaluation of the fidelity with which an intervention has been implemented that a viable assessment can be made of its contribution to outcomes, i.e., its effect on performance. Unless such an evaluation is made, it cannot be determined whether a lack of impact is due to poor implementation or inadequacies inherent in the programme itself.

In the 'Unplugged' programme the low level of implementation was suggested as one reason why the parental and class peer components did not seem to increase effectiveness [14]. Other obstacles encountered in the trial period of the programme, and which could be adjusted later, were the duration of the lessons and the content of some tasks (e.g. some role-plays) or materials (e.g. information on drugs). There is frequent mention in the literature of reasons why a programme may not be run as intended, for instance, the time needed to deliver an intervention and give it priority in an already full curriculum, the need for teacher training to deliver the intervention, and the need to ensure that materials or activities are relevant to the target group [11], identified 23 significant factors influencing implementation fidelity. The factors were grouped into five categories: community level, provider characteristics, innovation characteristics, factors relevant to the prevention delivery system: organizational capacity, and factors related to the prevention support system. The lessons for practice are that evaluation of implementation is an essential part of assessing the extent to which a programme has achieved its objectives. The issue of implementation fidelity has implications also for adjusting programmes to fit different local and cultural contexts.

'Unplugged' is an example of a universal programme, evaluated in seven European countries (Belgium, Germany, Spain, Greece, Italy Austria, and Sweden). It includes alcohol and other drugs and is mainly classroom delivered with a family component and a peer component. It aims to delay drug initiation and/or the transition from experimental to regular use for students age 12–14. The intervention was conducted between October 2004 and January 2005 in 78 schools with 65 schools as controls. The programme was evaluated as successful in reducing alcohol misuse—episodes of drunkenness—at 3 and 18 months post intervention. Parental and peer components did not increase effectiveness. The duration of the lessons and the content of some tasks were noted as barriers to delivery and the evaluation emphasised the importance of programme fidelity [13–15,7,33]. Programme design was informed by the comprehensive social influence approach. The main characteristics of the 'Unplugged' curriculum are that it:

- is based on the social influence model, being interactive, integrating life-skills elements and normative beliefs;
- consists of 12 units, each designed to be carried out within 1 or 2 school lessons; addressing knowledge and attitudes, interpersonal skills development, and intrapersonal skills development;
- contains information that covers a broad range of substances: tobacco, alcohol and illicit drugs, cannabis;
- has a peer-led intervention, involving selected students as supporters and supervisors of the classroom activities; they monitor classmates' application of the programme instructions; provide feedback from the class to the teacher;
- has a family component: aiming to provide parents with educational tools supporting the school prevention; using



interactive parents' workshops, lasting two to three hours each, conducted by staff/experts not employed by the school;

- has training for teachers delivered through a 2–5 day module providing training in interactive school work and instructions on using programme materials.

The evaluation of 'Unplugged' addressed programme fidelity and intervention outcomes. A monitoring system was set up to assess fidelity of programme delivery, implementation of parents' workshops and peer-led intervention. The intervention was assessed using a randomised control trial study design. Data were gathered prior to the intervention, at 3 months and at 18 months following intervention.

### 3.4. Programme transfer and cultural relevance

Often programmes developed in one country are transposed to other countries raising issues of programme translation to different cultural settings, especially in implementing 'western' programmes in 'developing' countries. The balance between fidelity of delivery and relevance, acceptability to the target group, and appropriateness to the social context are especially important when an intervention developed in one cultural or geographical setting is transferred to another context (e.g. [1]).

Project DARE, for example, has been implemented in several countries despite considerable scepticism about its effectiveness [12,20]. Speculating on why the programme may have failed in Brazil (where it is very popular) [29], point to lack of cultural competence as a possible explanation. They suggest that:

- the intervention was almost identical to the curriculum implemented in the United States
- many Brazilian students (particularly those from lower socio-economic backgrounds and those attending public schools) had to work full-time to support their families so they attended school as time permitted
- the poverty gulf in Brazil between rich and poor is greater than in the United States and a greater proportion of Brazilian youth live in abject poverty and in neighbourhoods with severe drug, crime, and gang problems
- relations between the federal military police and youth are very poor and many youth do not trust the police (who deliver the DARE programme).

Other programmes have been successfully transferred across countries. For instance, a slightly modified version of SHAHRP, an Australian programme, was implemented successfully in nine post primary schools in Belfast, Northern Ireland [19,23]. The 'Strengthening Families Programme' was initially developed in the USA as an indicated programme for substance-abusing parents and their children, six to ten years of age. It was then adapted as a universal programme for children aged 10–14—the 'Iowa Strengthening Families Programme'. This programme has been adapted for use in European countries and with different population groups. It has demonstrated the need for cultural adaptation that takes account of language, narrators, realism, acceptability of exercises/games, perceived religiosity and ethnic representativeness. ([1]:550) noted that,

the challenge is to adapt the material and format without compromising theoretical and conceptual integrity and therefore potential effectiveness.

Since 2003, the Strengthening Families Programme has been culturally adapted for use in 17 countries; (e.g. See reports from Sweden: [30]; Honduras: [32]; Italy: [26]. [11] review the debate regarding the extent to which adaptation can be permitted or

encouraged to suit local and cultural needs without compromising programme fidelity too much. They conclude that,

The prime focus should be on finding the right mix of fidelity and adaptation . . . and this cannot be determined without measuring each of these dimensions during implementation. Unfortunately, it is unclear in most studies of implementation exactly which components are reproduced faithfully, or exactly how the intervention is being altered in its new context ([11]:341).

## 4. Discussion and conclusion

### 4.1. Discussion

Despite disagreement in the literature regarding whether education 'works' or not, few question the provision of education about alcohol as part of the school curriculum, whether on its own or as part of a broader approach. School based alcohol interventions are extremely heterogeneous and evaluations of interventions have highlighted the difficulties in drawing conclusions about effectiveness. However, the conclusion that alcohol education does not work is challenged by the findings of several well-implemented and evaluated programmes. In particular, what differs is the expectation about what educational intervention should achieve in order to be seen as effective. Where the central message is 'no use' or 'delayed use' effectiveness is less likely than where messages are based on harm reduction, reduced amount or frequency of consumption or reduction in drunkenness/binge drinking. Evaluations clearly point to the value of booster sessions, phased or continuing intervention, to the need for trained deliverers and to the need for cultural competency in designing and implementing programmes. There is little support for interventions led by adults other than teachers and doubts regarding the value of added components although programmes such as Strengthening Families Programme which are the core of the intervention rather than an added component have been assessed as promising.

Evidence for what is considered to be good practice derives mainly from a highly selected group of evaluated programmes. This results in the exclusion of a large number of studies—although some of these may contain useful insights and important lessons for development and implementation. Reviews of alcohol education programmes have generally found a limited number of studies that meet the selection criteria regarding study design and procedures. For instance [16], identified over 600 relevant papers but only 56 papers met the quality inclusion criteria. Of the 56 papers, 84% were from the USA; 32 interventions included drugs other than alcohol (a feature of many interventions). The selective nature of the evidence and the fact that it relies on findings from a small number of countries means that consideration of cultural fit and transferability are extremely important. Although it may make sense to base new initiatives on proven programmes, the need to ensure that the programme is appropriate and acceptable in the specific context is paramount.

### 4.2. Conclusion

The following emerge from the literature as key components and characteristics of effective prevention programmes (e.g. see: [5,6])

1. guided by a comprehensive theoretical framework that addresses multiple risk and protective factors
2. provide developmentally appropriate information relevant to the target age group and the important life transitions they face

3. include material to help young people recognise and resist pressures to use
4. include comprehensive skills training to build resilience and help participants navigate developmental tasks
5. provide accurate information to counter misperceptions about peer behaviours
6. delivered using interactive methods
7. culturally and context sensitive
8. include adequate dosage to introduce and reinforce the material
9. provide comprehensive interactive training for providers

The need to develop the evaluation framework, tools and procedures simultaneously in planning the programme, is an additional ingredient of good practice if programme providers are to understand why the programme, or aspects of the programme, are successful or not.

### 3.7. Practice implications

There is no one template for good practice to suit all alcohol education development needs. However, experience from past initiatives and the evidence from evaluated programmes can provide useful insights. In considering 'best practice' in alcohol education, there are some broad guidelines within which to assess the relevance of findings from the literature to local conditions and specific contexts. Planning to develop and implement an alcohol education programme requires consideration of:

- **The problem:** alcohol use, problem use, alcohol-related behaviour
- **The target group:** characteristics of the target group, the immediate and wider social environment
- **The message** which is best suited to tackle the identified problem, is most likely be accessible and acceptable to the target group, and is based on best available evidence of effectiveness
- **The intervention:** based on theory and on available evidence, which intervention design/content/mode of delivery/dosage is most likely to prove effective
- **The resources** needed to deliver the programme successfully and availability of these resources
- **Components added to classroom delivery:** the likelihood that added components will be worthwhile
- **Cultural relevance:** the appropriateness of the intervention to the culture/target group/specific community and school environment
- **Evaluation:** the inclusion of programme evaluation from the start.

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The author is a member of IARD research advisory group.

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