



THE USE OF ECT IN OLDER PEOPLE: RISKS, RIGHTS AND RESPONSIBILITIES

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Older people, particularly women, are at increased risk of receiving electroconvulsive therapy (ECT) due to 'treatment overgeneralization' with inappropriate client populations. People are more at risk of ECT treatment with older age; these risks multiply if they have private health insurance, and/or if they become eligible for federal government insurance programmes, which provide coverage for ECT treatment. Older people are an inappropriate population for ECT. Due to behavioural or intellectual impairment/deterioration, older adults often cannot give either valid or informed consent. Older people in institutions are at risk of inadvertent rights abuse. Often, these residents do not have access to an advocacy service. The added medical complications (particularly with cardiac problems) that occur with ageing contraindicate ECT as an appropriate treatment for older people. A range of safer/less invasive treatment alternatives exist, which are more appropriate for older people.

'The typical patient receiving ECT today is a white woman older than 60 years with a depressive illness complicated by medical problems, who will receive ECT treatment in a private hospital' (Khan *et al.*, 1993: 498).

Introduction

Electroconvulsive therapy (ECT) was first used by psychiatrists in the 1930s. It is a treatment administered mainly by psychiatrists in which electric currents are used to induce epilepsy-like convulsions. When electric current is used, treatment can be either unilateral (electric current is delivered to one side of the brain) or bilateral (electric current is delivered to both sides of the brain). The mechanism of action remains unknown (King and Liston, 1990).

ECT was a treatment of choice in many state hospitals in the 1950s and 1960s (Gatz and Warren, 1989). It was commonly used during the 1960s for schizophrenia, but its use appeared to decline after the 1960s due to negative public perceptions of the treatment and the availability of new treatment options. Subsequently, technological advances led to the modification of ECT techniques. Contemporary ECT is usually referred to as 'modified ECT'. It allegedly involves less treatments, lower voltage, the use of general anaes-

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thetia and the administration of anticonvulsant drugs to prevent fractures, which were common in the early years (Warren and Levy, 1991). The American Psychiatric Association guidelines state that ECT should only be used as a treatment of last resort for severe depression and not for schizophrenia and nondepressive diagnoses; unilateral administration is also preferred (Winslade, 1984). An analysis of the data indicates that ECT is given for a wide range of presenting behaviours and that bilateral administration is still used (Oxlad and Baldwin, 1995). Although many psychiatrists have claimed that modified ECT is much safer, other researchers have counter-argued that it is actually more harmful (Breggin, 1991; Cameron, 1994). Thus, despite attempts to 'reform' ECT, its use continues to be debated amongst health professionals and its implementation dominates psychiatric treatment environments.

Prevalence rates

Accurate prevalence rates of ECT administration with older adults are difficult to determine, due to client/practitioner confidentiality and the problem of under-reporting. In the USA, most state legislatures require the reporting of ECT use in public hospitals, but California is the only state that mandates the reporting of ECT use in both public and private hospitals. This is significant because the statistics suggest that ECT is administered disproportionately in private hospitals (Gatz and Warren, 1989; Warren and Levy, 1991). Despite these problems, data from the annual reports to the legislature by the Office of Patient Rights, California State Department of Mental Health, indicates that the use of ECT with elderly people is increasing. The percentage of ECT clients aged 65 years or older has continuously increased from 31.9% in 1977, to 40% in 1982 and 53% in 1988 (Gatz and Warren, 1989; Warren and Levy, 1991).

Concerns have been expressed about the overapplication of ECT to inappropriate clinical populations (Baldwin and Jones, 1990). Civil rights groups and advocacy organizations have expressed criticisms about the extension of a psychiatric technique into new clinical territories without data to support such treatment overgeneralization. For example, there are no scientific data to justify the use of ECT with minors. The treatment is used frequently with children and adolescents, however, for a wide range of both clinical and social disorders (Baldwin and Oxlad, 1996; Oxlad and Baldwin, 1995). Moreover, ECT has been used extensively with pregnant women, black and ethnic minority clients, and people with AIDS/HIV. In each instance, concern has been expressed about *ascientific* overapplication of the technique to an inappropriate population.

The use of ECT with older people may rather be viewed as an example of psychiatric expansionism (Barker *et al.*, 1989). In this scenario, the province of psychiatry has been gradually expanded so that new 'territories' for ECT have been identified. Expansion of medicine and psychiatry into other professional provinces has been the subject of considerable debate (Brown, 1990; Gergen, 1990; Scull, 1990; Cohen, 1994).

Psychiatric explanations for ECT administration

ECT has been used to treat several conditions experienced by older people including: neurological disorders (e.g. Alzheimer's disease), major affective disorder, melancholia syndrome, depressive stupor, florid delusions, specific psychotic disorders and mania (Goldney *et al.*, 1985; Wilkinson *et al.*, 1993; Devanand and Krueger, 1994; Duncan *et al.*, 1986). According to psychiatrists, the primary indications for ECT treatment in older people are various forms of depression, such as major depressive disorder and endogenous depression (Mielke *et al.*, 1984; Raskind, 1984). Recently, however, ECT has been given both for concomitant depression and the motor phenomena associated with Parkinson's disease (Friedman and Gordon, 1992; Zielinski *et al.*, 1993). To date, only one controlled study, with a few subjects, has been completed to evaluate the efficacy of ECT treatment for Parkinson's disease (Anderson *et al.*, 1987). The extensive scientific controlled evaluations (normally required to justify introduction of new experimental unevaluated treatments) simply do not exist. Furthermore, ethical approval would be unlikely for such studies.

Research has also been completed into the use of brain imaging. It has been claimed that depressed older people have increased white matter lesions and other abnormalities, which cause resistance to medication (Devanand and Krueger, 1994). Thus, magnetic resonance imaging results that suggest the presence of white matter lesions have been interpreted by some psychiatrists as a clinical indication for ECT treatment. Any scientific relationship between white matter lesions and 'resistance to medication' has, however, yet to be established.

Such physical and psychological precursors often have been used as 'indications for ECT'. For older people, sociodemographic factors have often been seen as more important than therapeutic indicators (Warren and Levy, 1991). A one-month hospital stay (with ECT treatment) has been costed at approximately US \$20 000. Most of this expenditure can be paid via private health insurance cover (Breggin, 1991). Moreover, in the USA, all people over the age of 65 years have automatic Medicare (federal government) insurance, with specific provision for ECT treatment (Devanand and Krueger, 1994). Thus, according to Viscott (1972: 356), 'finding that the patient has insurance seemed like the most common indication for giving shock'.

This problem has been recognized and subsequently rectified by some health care staff. For example, in 1991, the San Francisco Board of Supervisors 'passed a resolution against the use of public funds for ECT based on assertions that psychiatrists were taking financial advantage of older women by administering ECT' (Khan *et al.*, 1993: 498).

There is some evidence for health insurance as a predictor for ECT administration. Procedures at one hospital in the USA provide case study evidence. Health care staff administered different modes of shock treatment (including bilateral and unilateral), both with and without anaesthetics, and used chemically-induced seizures when ECT may not have been the most appropriate and/or effective form of intervention. This inappropriate overuse and overgeneralization of ECT administration was justified by hospital staff because of health insurance considerations. Staff maintained that ECT was viable, as health insurance payments were only provided for a few weeks of treatment.

Also, treatment periods were rarely extended (Castel *et al.*, 1982). Clinical criteria had thus been subverted by economic criteria.

Failures with pharmacotherapy have also been viewed as an indication for ECT in older people. The complications sometimes associated with drug treatment and poor response rates have allowed some psychiatrists to justify the use of ECT on the grounds that drug therapy is not appropriate for older people.

Pharmacotherapy has frequently been recommended for various mental health problems, including depression. Researchers have maintained, however, that only rarely should drugs be used as a first treatment; pharmacotherapy may be effective when other psychosocial interventions have failed (Eisenberg, 1971). Positive results have been claimed with drug treatments for several clinical populations, including children/adolescents and adults (Black, 1991). The effectiveness of pharmacotherapy is, however, questioned for the population of older people. Associated risks of 'maintenance antidepressive pharmacotherapy' are well documented (Consensus Development Panel, 1985; Prien and Kupfer, 1986; Georgotas and McCue, 1989). Older people may also suffer medical complications due to treatment and drug interactions (Warren and Levy, 1991) and they may not be able to tolerate the anticholinergic side-effects of tricyclic antidepressants (Kotin, 1993). Therefore, pharmacotherapy may be neither the safest nor the most appropriate treatment for older people.

While there are numerous hypothetical contraindications, there are few absolute signs that are widely accepted by most psychiatrists to prescribe ECT in older people. Established contraindications include: history of cerebral haemorrhage, cerebral aneurysm, raised intracranial pressure, recent myocardial infarction; aortic aneurysm and acute respiratory infection (Barker and Baldwin, 1990).

In the 1990s, some psychiatrists have argued that ECT can be safely administered to people who have severe cardiovascular disease, obstructive pulmonary disease, cardiac arrhythmias, artificial pacemakers and implanted cardioverter defibrillators, and also those who have had a heart transplant (Fink, 1990; Goldberg and Badger, 1993).

Efficacy

Many older people who are at risk for many side-effects, also show 'depressive symptomatology' (i.e. negative clinical signs) post-ECT (Wilkinson *et al.*, 1993). Even when an apparent improvement has been observed, some researchers have maintained that ECT has greater relapse rates than other treatments (Spiker *et al.*, 1985). This is particularly true of major depressive disorder (Sackeim, 1994). Moreover, many people who have been given ECT relapse after an apparent initial improvement. Several hypotheses have been generated about the reasons for this, including the proposition that apparent ECT benefits are best explained by 'regression effects'. Such a 'regression hypothesis' is based on the rationale that behaviours at the extreme end of the normal distribution will subside and revert to 'normal' levels. Hence, some people who are very depressed or psychotic will improve anyway without intervention. The 'rule of thirds', for example, is based on data that illustrate

that about 30% of people who present with mental health problems will improve via 'spontaneous recovery', but many people who apparently improve after ECT deteriorate several weeks later, with or without further ECT treatments.

Unique concerns about ECT in older people

Consent

Although there are considerable cross-national differences, there is general agreement that ECT administration requires the prior informed consent of the recipient. In the UK and the USA, for example, mental health legislation requires that adult recipients have given their prior consent to the procedure. In the UK, existing mental health legislation has required that the likely consequences of ECT have been explained, including any possible negative side-effects.

The theme of consent, however, has yet adequately to be resolved in the context of ECT administration in older adults. In the UK and the USA, several client groups are more likely to be given ECT merely by virtue of their membership of that group (irrespective of their clinical status). Thus, the probabilities of treatment with ECT increase when the client is female, black, older than 60 years, younger than 18 years or a member of a minority ethnic group (Baldwin and Oxlad, 1996; Breggin, 1991). Ironically, membership of several of these client subgroupings impacts directly on the capacity to give consent. A person who is both older *and* confused, therefore, is multiply disadvantaged, by virtue of reduced decision-making abilities (comprehension difficulties and/or an impaired sense of personal need).

Older people rarely seek psychological assistance via a spontaneous demand for ECT treatments. ECT may, however, be advocated by a partner or a spouse (Warren and Levy, 1991). Generally, such clients are recommended for ECT because of mood/affect disorders, or due to a perceived 'risk of suicide'. Many older adults, however, are also at risk for the unwanted consequences of invasive or high-risk therapies; often there is nobody to advocate their best interests. By definition, many widowed or single older people have nobody to represent their views at a case conference, case review or planning meeting. Given the unreliability of psychiatric diagnosis (Kirk and Kutchins, 1992, 1994) older people are at risk for 'double disadvantage'. Incorrect or aggressive over-diagnosis may be followed by incorrect or inappropriate treatment.

Paradoxically, older people most at risk from unwanted or unnecessary psychiatric treatments may be the most likely to receive physical therapies (e.g. drug treatments with aggressive side-effects or ECT). Moreover, older people are especially likely to be recommended for (and be given) ECT, as they are perceived as vulnerable to the unwanted side-effects of drug treatments (Pitt, 1992).

The theme of consent also requires the resolution of different outcomes from informed and valid consent. For example, informed consent requires that the recipient has been given adequate and appropriate information about the procedure. In the example of ECT, it would require that the person had received information about the positive and negative outcomes, as well as possible side-

effects. Valid consent, in the same situation, would require that the information was free, unfettered and accurate.

To summarize the situation about older people and consent for ECT, unresolved questions about effectiveness and appropriateness remain unanswered by discrepant methods of inquiry.

Legality

Older people, by virtue of acquired impairment, behavioural or intellectual deterioration, are at risk from denial of their needs and/or rights. Older people who are institutionalized in health/social service facilities are especially at risk for inadvertent rights abuse via staff neglect or faulty service provision. Inadequate planning or implementation may explain some institutionalized client abuse. In the contemporary competitive service climates of 'case mix' and 'case management', the needs of individual people can be easily overlooked in the collective scramble for resources.

Older people in neighbourhood and locality settings are also at risk for psychiatric abuse from inappropriate ECT administration: For example, family doctors may refer distressed or infirm older people on to psychiatric staff, in response to pressure from relatives or neighbours. Older people may be filtered towards inappropriate provision, due to structural problems in the service system (Baldwin, 1987). Hence, although location (i.e. home residence, hospital, residential home) may not predict which services older people receive, the presence (or absence) of a social network (family, friends, relatives) may influence directly whether or not an older person is recommended for ECT. An established social network of friends and relatives, moreover, may predict whether or not a 'third party' advocate will intervene to prevent the delivery of ECT.

Notwithstanding some cross-national differences in mental health legislation, restrictions on physical and psychological interventions are usually waived whenever the treatment is considered to be 'in the person's best interests'. Thus, for example, although the procedure of psychosurgery involves the destruction of live brain tissue, it is assumed that the neurosurgeon acts in the person's best interests via the subsequent relief of psychological suffering and distress. In these circumstances, the normal legal consequences (i.e. prosecution after a criminal assault) do not apply; medical jurisdiction permits the completion of procedures that would otherwise be viewed as injurious and illegal.

When ECT has been given to older people against their wishes and/or in the absence of valid consent, a common law tort may have been committed. In particular, if agreed procedures are not followed (or they are ignored) the client (or their representatives) may initiate legal proceedings to establish a criminal assault. Older people, whose functioning is often already restricted by virtue of disability or impairment, are especially at risk for inadvertent assault when ECT is completed against their wishes or in the absence of valid consent. Mental health legislation requires urgent modification to determine the limits of medical interventions on behalf of older people who are often unable to assert their own needs.

In a mental health provision climate in which physical remedies (i.e.

pharmacotherapy, hospitalization, psychosurgery) are often used as front line interventions, ECT is viewed by many medical practitioners as a first choice treatment. Services for older people are frequently impoverished, with a narrow range of unsophisticated options based on drug treatment and ECT (Warren and Levy, 1991). ECT may be packaged as a 'least restrictive treatment' in the context of ineffective drug treatments and hospitalization. Frequently, psychosocial interventions are not available or are not offered. This narrow focus on biomedical treatments could risk oversimplification of both the problem and the solution.

Side effects

Since the introduction of ECT in 1938, considerable evidence has been accumulated about the negative side-effects of this treatment. Even the staunchest proponents of ECT have acknowledged these sometimes devastating side-effects: 'The principle complications of ECT are death, brain damage, memory impairment and spontaneous seizures' (Fink, 1978). Another proponent of ECT acknowledges that 'a patient recovering consciousness from ECT exhibits multiform abnormalities of all aspects of thinking, feeling and behaving, including disturbed memory, impaired comprehension, automatic movements, a dazed facial expression and motor restlessness' (Abrams, 1988). Other frequently reported side-effects have been confusion, dizziness, nausea, vomiting and headaches (Gomez, 1975; Freeman and Kendall, 1980; Hughes *et al.*, 1981; Kerr *et al.*, 1982; Galletly *et al.*, 1991).

The most common complaint of people who have received ECT is the dramatic loss of memory. Close inspection of the literature has revealed that the risk and degree of memory loss may be dependent on the mode of ECT (i.e. bilateral or unilateral). A study by Squire and Chace (1975) found that 27% of subjects who received unilateral ECT and 67% who received bilateral ECT reported memory loss.

Although memory loss is the most common complaint, other (rare but serious) side-effects have also been documented. The authors of one study found that, after ECT, four subjects had *increased* depression or arousal, two reported urinary problems and one reported pimples on the scalp (Hughes *et al.*, 1981). Spontaneous seizures and epilepsy have also occurred as a direct result of ECT. Devinsky and Duchowny (1983) maintained that prevalence rates of spontaneous seizures have been under-reported in the literature. It has also been noted that ECT has produced disinhibition and increased sexual activity (Bertagnoli and Borchardt, 1990). In the most severe cases, people have attempted suicide after ECT, fearing further treatments (Clardy and Rumpf, 1954).

Authors of retrospective reports have shown that older people are prone to medical complications during ECT (Alexopoulos *et al.*, 1984; Catten *et al.*, 1990). Zielinski *et al.* (1993) studied the complication rate of 40 people with major depressive disorder and 'moderate to severe' cardiovascular disease. In eight subjects, there were 'major' complications at least once during the implementation of ECT treatment. Complications were usually of an ischaemic or arrhythmic nature. Interpretation of the results of this study suggested that cardiovascular side-effects may be more common than previously reported (Steiner *et al.*, 1993).

Side-effects reported by people with implanted cardioverter defibrillators have included hypertension, episodes of apnoea, hypotension and complex tachycardia (Goldberg and Badger, 1993). More recently, beta blockers have been used to reduce the hypertension and tachycardia associated with ECT; these side-effects increase cardiac work-load and may cause later coronary heart disease (Knos *et al.*, 1990). Other side-effects reported by older people have included mild sinus tachycardia, transient delirium, myocardial infarction and acute confusional state (Raskind, 1984; Mielke *et al.*, 1984).

However, more seriously, ECT has been associated with mortality. Proponents of ECT have argued that mortality rates associated with the treatment are low and that deaths and fractures occur less frequently in the 1990s due to the use of 'modified ECT'. ECT critics have provided convincing accounts that contemporary ECT administration is more dangerous, due to the use of electric current of greater intensity (Breggin, 1991; Cameron, 1994). Many reported cases, however, have indicated that deaths attributable to ECT have occurred since the early 1940s (Alpers and Hughes, 1942; Ebaugh *et al.*, 1943). Deaths have continued to occur during the 1990s, moreover, despite the use of modified ECT (Breggin, 1991).

Furthermore, rather than preventing death, modified ECT may even contribute to mortality rates. The use of anaesthetics, sedatives, muscle relaxants, muscle paralysis and artificial respiration has led some psychiatrists to argue that modified ECT is more dangerous than unmodified ECT (Breggin, 1991). Higher intensity currents (required to compensate for the anticonvulsant effects of sedatives given prior to the shock) and increased seizure thresholds (created by mild tranquillizers and sedatives) also increase the risks of damage during ECT treatment (Breggin, 1991). This is particularly important for older people; researchers and clinicians have documented that seizure thresholds increase in males in older age and when bilateral ECT is given (Sackeim *et al.*, 1987, 1993). Even when these factors are taken into account, there is still wide variability between individuals and with seizure thresholds (Sackeim *et al.*, 1993). Thus, older people, particularly older men, will require larger quantities of intense electrical currents to induce a convulsion, which may increase the severity and intensity of the side-effects associated with ECT. This will increase the mortality and morbidity rates for older people.

Recommendations for effective alternative treatments

The moral, legal and ethical values of practitioners have been questioned in the context of the recommendation and administration of ECT. Many older people find the treatment aversive and unpleasant; safer and less invasive intervention alternatives are available.

With older people, the main health challenge for service provision remains the matching of adequate services to accurately defined health, social and personal needs. Older people share the same 'core' needs as other citizens (Harding *et al.*, 1987). These areas of need include (but are not limited to): health, relationships, mobility, meaningful daytime activity, a place to live, leisure and education (Baldwin, 1987). Often, however, neighbourhood and locality services aimed at meeting these needs are identified for older people,

but are not provided (Baldwin *et al.*, 1986). Despite this, nobody has a 'need for ECT'; such perceptions are more revealing about the belief systems of psychiatric staff and their values about older people. Although many staff will advocate ECT for their clients, few will accept this treatment for themselves or their relations.

Some psychiatric staff have claimed that ECT is used in the absence of effective alternatives. This motivated distortion should be challenged. Many therapeutic alternatives exist in the diverse treatment climate of the 1990s. Treatments that provide safe and effective substitutes for ECT with older people include (but are not limited to): behaviour modification (i.e. psychotherapy), counselling, cognitive therapy, stress inoculation training, group therapy, family therapy, behaviour therapy, marital therapy, assertiveness training, self-control training, social skills training and environmental manipulation.

Psychotherapy and counselling with older citizens includes the use of reminiscence therapy and a focus on restoring a psychological balance to disturbed historical events. The aim of cognitive behaviour therapy, for example, is to restructure hypothetical internal constructs such as thoughts, feelings and emotions. A purely behavioural approach, in contrast, is often focused on the skills and repertoires of older people in order to increase competence or to reduce problem behaviour areas. Interpretations of previous studies have found that most older people suffering from 'anxiety' disorders have improved after the use of cognitive behavioural interventions and have maintained this improvement at follow-up at three to six months (King and Barrowclough, 1991). Several studies have also been conducted into the use of cognitive therapies for depression (Morris and Morris, 1991; Woods, 1992). It was found that cognitive, behavioural or insight-orientated psychotherapies were all equally effective for depressed older clients (Thompson *et al.*, 1986). Thus, there is considerable evidence to show that cognitive and behaviourally orientated therapies, when designed to cater for individual clients' needs and abilities, are viable and potentially effective treatment options for older people (Woods, 1994). It is likely that clients find that these treatments are physically and psychologically less aversive.

Even in the contemporary service culture of 'cost-effectiveness and cost-efficiency', practitioners should still strive to provide a range of treatment options based on individual needs. It is clear that the use of ECT with older people is not only fraught with difficulties but is an inappropriate treatment for vulnerable older clients. Thus, the establishment and required use of effective psychosocial treatment options is crucial in helping to avoid psychiatrists' simplistic dependence upon physical therapies.

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