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Controversial Issues

ECT, Infants, Children and Adolescents: Shocking Abuse of Power, or Valuable Treatment Medium?

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ECT has been administered to infants, children and teenagers between the ages of two and eighteen, in Europe, North America and Australasia. There are several alternate forms of effective behavioural and cognitive interventions for the range of problems experienced by minors. In this paper, some of the reasons for the contemporary popularity of ECT administration with children and teenagers are explored, via a critical evaluation of the published literature.

Introduction

These physicians who rush to apply mechanical treatments without proper psychological investigations are demonstrating their own ignorance and mistreating their patients. Man (sic) is worthy of better treatment than a car or wireless set, and those who do not give it to them are betraying their trust. (Allen, 1949)

An analysis of ways in which a society treats its children reflects aspects of prevailing political, social, cultural and ethical values. The authors (Royal College of Psychiatrists, 1993) of a recent UK survey identified at least 60 children given electro-convulsive therapy (ECT) between 1982 and 1992. It has been estimated that between 500 and 3500 minors are given ECT in the USA each year (Thompson and Blaine, 1987).

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ECT with children and adolescents: a brief history

ECT/EST (electroshock therapy) administration with minors was first recorded in 1947. In the USA, Bender (1947) reported ECT use with 98 infants, children and teenagers, aged between 4 and 15. In France, Heuyer, Dauphin and Lebovici (1947) reported use of ECT with 29 minors aged between 5 and 16. The historical impact of these studies is discussed elsewhere (Baldwin and Oxlad, 1996).

In the 1950s ECT was regarded by many psychiatrists as a safe and effective intervention for a wide range of disorders and client groups. Literature that reported ECT administration to children/adolescents was scant prior to the 1960s. Some clinic populations included ECT administration with children and teenagers (e.g. Gallinek, 1952). These studies were not experimental evaluations, however, but ad hoc reports of individual clinical practice. There were many unresolved questions about scientific validity.

In the 1970s, a key report from the USA influenced a generation of clinicians, both in North America and Europe. The Task Force Report on ECT in Massachusetts was based on questionnaire results. It was noted that 17/56 (30%) respondents emphasized the inadvisability of ECT administration with children or adolescents. The Task Force was unanimous that: "administration of ECT to young children who have not yet reached puberty has no established usefulness and therefore such therapy on a routine basis cannot be justified" (Frankel, 1973).

If ECT was ever offered as a treatment procedure for children prior to puberty then: (i) it must be explained to parents/guardians that effectiveness of ECT for psychiatric disorders in pre-adolescent children is unproven, and that such use is not generally accepted; (ii) that following a most rigorous investigation of the case, explicit indications for an experimental trial should be recorded and that the quality of the study should ensure publishable results, and that; (iii) it would be prudent before proceeding to have concurrence from another hospital in clinical justification for the experimental use of ECT with a particular child.

In the UK at this time ECT was recommended by psychiatrists as a treatment to: "control an acute psychotic or depressive illness". It was also recommended: "if all drug treatments have failed after proper and prolonged use to control the illness" (Frommer, 1972). Psychiatric disagreement continued, however, about the diagnosis and treatment of "affect disorders" in children. Amidst this categorical confusion, the existence of specific depressive disorders was questioned (Warneke, 1974); even the adequate definition of the term "children" proved difficult.

In the 1980s, psychiatrists continued to use ECT with children, teenagers

and young adults. ECT was reported with the treatment of post-pubertal children with "adult-like" psychotic disorders. Nonetheless, in 1981, Pippard and Ellam had noted that some clinicians had opposed ECT use with minors in any circumstances.

A review of the psychiatric literature about ECT administration with minors has confirmed there have been no controlled studies. Published reports consist of anecdotal case histories, without any standardized evaluation methods used. An examination of early psychiatric texts suggests that ECT was considered a viable option in "childhood schizophrenia" (Freedman, Kaplan and Sadock, 1972; Redlich and Freedman, 1966). Other psychiatrists, however, have remained unconvinced about perceived benefits about this treatment (Kanner, 1966).

Some psychiatrists have continued to advocate ECT administration with infants, children and adolescents (Bender, 1947, 1973). Other psychiatrists have been more negative, arguing that administration of ECT to children with psychotic behaviour was "of no real clinical value" (Clardy, 1951; Hift, Hift and Spiel, 1960). Black, Wilcox and Stewart (1985) noted that the literature about ECT with minors did not report the use of valid assessment scales; nor had controlled studies with reliably applied criteria been conducted. However, few psychiatrists had condemned its use.

Psychiatrists who work with vulnerable client groups (e.g. children, people with intellectual disability) should address unresolved core themes about the social control of adolescent behaviour. Health care practitioners have identified a series of factors and societal stressors that contribute to childhood emotional/psychological problems. These include: neglect; poverty; abandonment; physical/emotional abuse; sexual abuse; familial conflict; physical violence; families with low income; poor educational opportunities (Gaoni, Baldwin and Black, 1996). Also, conclusive scientific evidence to indicate biological/genetic bases for common childhood psychiatric disorders has not been generated (Kirk and Kutchins, 1991, 1994).

Moreover, aversive environmental factors (and the psychosocial sequelae of childhood abuse) sometimes have been insufficiently considered by some biologically-orientated psychiatrists. Within this bio-psychiatric framing, children are perceived as impaired from biochemical or genetic defects. A combination of misdiagnosis and use of inappropriate treatments has produced dysfunctional clinical environments. In such settings, children and adolescents are at-risk to secondary psychiatric abuse (Kirk and Kutchins, 1991, 1994).

"Mechanistic fixes" (e.g. prescriptive use of ECT and psycho-pharmacological treatments) for the complex psychological problems of childhood, has continued in many places into the 1990s; proper regard for psychosocial

factors has been absent. Consequently, some institutional responsibilities to improve quality of life have been removed from government, society, parents, families, schools and child health professionals. There has been a simultaneous over-absorption of children into psychiatric systems. In these highly-aversive settings, minors are often (mis)labelled, scapegoated and further damaged (Baldwin and Barker, 1995).

Instead of being given inappropriate physical treatments, those children who show atypical responses to the normal stressors of development should be monitored and protected by adult guardians and parents (Oxlad and Baldwin, 1995). Too often, children who have failed to conform at home (and/or at school), due to developmental/psychological distress, or even as a result of normal rebelliousness, have become involuntary and inappropriate consumers of psychiatric services. Minors require provisions with an explicit service commitment to meet their psychological needs and provide safety to prevent what Breggin (1993) has observed. "Contemporary psychiatry has turned psychosocial wisdom and knowledge on its head and increasingly the child is blamed for problems in the family and psychiatry" (Breggin, 1993).

When children experience personal problems at home/school, sometimes adults are perceived as the victims. Paradoxically, however, although parents, teachers and psychiatrists retain domestic/institutional power and control, children have remained powerless (Baldwin and Barker, 1995).

When children are hospitalized (particularly when forcibly detained) psychiatrists and nurses hold even more institutionalized power than in "outpatient" settings; this "invested" authority often supersedes the province of parenthood. In these potentially unrewarding environments, children are given psychiatric care. At times this is far from caring, sometimes stemming from moral views of "naughtiness" as opposed to any notions of "illness" or even distress. It is unsurprising, therefore, that many minors often receive wholly inappropriate psychiatric treatments, including ECT and/or psychosurgery. If ECT administration to minors represents a cynical denial of human rights, psychosurgery with teenagers truly represents the destructive abnegation of treatment, for punishment.

Adults who are threatened by the challenging behaviours of distressed children should acknowledge the real power balance. The true therapeutic challenge remains to improve children's lifestyles (and accept the subsequent responsibilities) without resorting to punishment methods. Previous punitive "treatments" have included: prolonged incarceration/hospitalization; corruptions of behaviour modification techniques; "pindown" (Baldwin and Barker, 1995); and ECT (Baldwin and Jones, 1991).

Some children hospitalized in psychiatric units may never fully recover

after the multiple traumata of: psychiatric diagnoses, the consequences of this labelling and subsequent physical treatments such as ECT delivery. Often these minors are stigmatized and scapegoated by peer group members, with resultant psychological trauma (Gaoni et al., 1996). After a child has been admitted to psychiatric services, feelings of shame, guilt, and poor self-worth may ensue. These negative self-concepts are highly likely if rights to free choice and self-determination have been removed or rationalized by powerful adults.

Moreover, psychiatrists who resort to physical (e.g. ECT) not psychological (e.g. psychotherapy) treatments restrict the potency of the child's efforts to resolve their own difficulties. Physical treatments reduce environmental problem-solving, and restrict the child's contribution. An abused child may be subject to the additional abuse of the side-effects of psychiatric diagnosis and ECT administration or aggressive pharmacotherapy; the original abuse can thus remain masked and untreated, attributed to "side effects" that are viewed as necessary for treatment (Oxlad and Baldwin, 1996).

Adult staff often persuade minors to cede to consent to psychiatric treatments. Adults usually hold the balance of power in their relationships with minors. In psychiatric services minor clients are frequently at-risk for coercion. Adults who coerce minors into psychiatric services violate fundamental human rights.

Some practitioners have cited clinical expediency ("I know it works, therefore I use it") to justify their decision to administer ECT to children and adolescents; such staff have acted at the outer margins of psychiatric practice. These decisions have been based on personal and professional instincts, however, and not on an established clinical rationale. There are no scientific data to support use of ECT with minors. Furthermore, no ethical committee would ever give consent for such a study of ECT (Baldwin and Jones, 1991; Oxlad and Baldwin, 1995).

ECT administration to children and teenagers has only been permitted to continue because of the *perceived* clinical freedoms of medical practitioners. Medical staff generally are unrestricted to provide any treatment. Practitioners who advocate ECT should consider clinical, legal, moral/ethical factors, and examine their own professional code of conduct.

ECT with minors: current perspectives

In the 1990s, with limited resources and a clinical focus on effectiveness, all clinicians should measure outcomes of treatments/interventions they prescribe. This has not occurred with the administration of ECT with children and adolescents, however, where practitioners have focused on diagnosis and (sometimes) process, not outcome. Moreover, a full range of

proven psycho-social therapies exists for treatment of this special client group. Also, in the context of still-developing neurological systems in pre-pubertal children, experimental or "exploratory" (sic) administration of ECT to children/adolescents is clinically unjustifiable.

However it is disguised, the administration of ECT with children and adolescents remains morally, clinically, ethically and legally unacceptable (Baldwin and Jones, 1990, 1991; Baldwin and Oxlad, 1996; Jones and Baldwin, 1992; Oxlad and Baldwin, 1996). In some circumstances it is unlawful.

In the absence of supportive data, some practitioners have even attempted to use unpublished material from anecdotal case studies to bolster their untenable clinical position. Uncorroborated reports from heterogeneous groups of children with diverse problems also have been cited. Other practitioners, however, have conceded that the published literature about children/adolescents and ECT contains no controlled studies, no accepted code for administration, no established/reliable criteria for outcomes, nor any valid assessment scales (Black et al., 1985).

Despite the conspicuous absence of supporting data, ECT with children/adolescents has remained a "treatment of choice" for some UK practitioners (Baldwin and Jones, 1991). Moreover, authors of several reports have highlighted widespread institutionalized under-reporting of ECT administration to minors. For example, the recent Royal College of Psychiatrists survey of ECT use with minors located 60 cases during the 1980s. The authors, however, did not include data about children who were given treatment outwith NHS facilities (e.g. in private service settings). In the USA, it has already been established that ECT is routinely administered more frequently in private, not state, treatment settings (Breggin, 1993; Frankel, 1973).

Non-availability of accurate, durable data has contributed to institutionalized under-reporting of ECT; also it has distorted the manufactured image about ECT use with minors. This has minimized levels of professional concern by workers involved with children/adolescents, and has marginalized the central clinical debate about effectiveness. Moreover, one UK survey established that 54% of children and adolescents are given care in adult wards. Health care for minors in adult services may constitute an additional risk factor.

First, in the UK, the available information has been limited to the collection of selective data from NHS child treatment units. Published frequency data about ECT usage therefore *neglects the 54% in adult units. Minors in such non-specialist units are more likely to be given ECT which is more widely used in adult treatment settings.* Second, in many NHS hospitals in the UK, juveniles and teenagers have been moved from children's wards to

be given administration of ECT in adult wards (Baldwin and Jones, 1991). Most ECT suites are located in adult treatment settings; problems of chronic underreporting (due to inaccurate collection of data at source) have become clear.

Practitioners who prescribe ECT for children and adolescents risk sanctions from professional organizations. Use of unproven treatments such as ECT should be resisted by practitioners who work with an already-vulnerable client group. Administration of high-risk treatments can provoke negative iatrogenic effects (Baldwin and Oxlad, 1996).

Practitioners who promote ECT with minors should address the negative findings; some authors have noted post-administration induction of seizures (Gutmacher and Cretella, 1988). Also, concerns have been expressed about negative developmental consequences from induction of seizures in the still-developing brain and neurological systems of pre-pubertal minors (Gutmacher and Cretella, 1988). Practitioners who administer ECT with children and adolescents have focused on "expected benefits" rather than potential "negative outcomes/side-effects". In a multiple case sample meta-analysis, evidence for informed or valid consent was almost never detected, contrary to the vigorous protests of psychiatric practitioners (Baldwin and Oxlad, 1996).

Valid consent

For adults, consent to ECT is required in the UK from persons detained both formally and informally. If a formally-defined adult has refused ECT, then practitioners have been required by law to gain an independent second medical opinion (DHSS, Mental Health Act, 1983). "Valid consent" has required that an individual has fully understood the nature, purpose and expected consequences of the treatment (including the potential negative side-effects).

Despite these clear statutory requirements, authors of several studies have revealed that individual clients frequently have not received adequate explanations of ECT treatments (Freeman and Kendall, 1980). In this context, some practitioners clearly have been negligent in their professional conduct about gaining consent from adult recipients of ECT.

With child and adolescent clients, moreover, themes about consent are more complex. In general, if a minor has been deemed to understand the nature and implications of the treatment, clinicians usually have considered it appropriate to continue with ECT administration. Even when consent has been explicitly refused, however, some practitioners have proceeded. In this context of client refusal of consent, however, it could be considered extremely unwise for medical practitioners to proceed. In the absence of

"valid consent", parents of minors under eighteen sometimes have made pragmatic decisions "in their best interests" (sic). In the context of current UK mental health legislation, however, it is not possible for one person to give valid consent for ECT "on behalf of" another person.

Administration of ECT to children and adolescents has raised singularly complex themes, with legal, clinical, moral, ethical and philosophical dimensions. From a legal perspective, "valid consent" about such controversial practices requires that child/adolescent clients should be fully aware of the nature, purpose and consequences of treatments. This should include clear information about negative side-effects, as well as possible benefits: "In the case of minors this should involve a full explanation of 'the state of the art' in the use of ECT with younger people" (Barker and Baldwin, 1990).

Criminal assault

Administration of ECT with adults has required that individuals have been made aware of potentially harmful side-effects of treatment. There is widespread agreement (even amongst psychiatric advocates of ECT) about negative iatrogenic consequences, including memory loss and risks of permanent brain damage (Breggin, 1993). Psychiatric practitioners who fail to discuss these factors adequately have risked professional malpractice; a criminal assault (tort) may have been committed when ECT has been enforced with unwilling and non-consensual children. In a recent cross-national review of all published examples of ECT administration with minors, the authors noted less than 5% of cases reported valid or informed consent (Baldwin and Oxlad, 1996). Actual obtained consent rates are unknown.

Moreover, concern has been expressed about the appropriateness of parental consent for psychologically-invasive and physically destructive treatments such as ECT. Within existing UK mental health legislation, there is provision for parents to give consent "on behalf of" their son or daughter for some procedures. There is an unresolved debate, however, about whether this can constitute valid consent. Even if judged admissible, the nature of the information given to the parents is crucial.

Furthermore, it is psychologically difficult for parents to truly represent the "best interests" of their at-risk children, amidst the complex dynamics of family life (Hogget, 1984). In some family environments, "punishments" are viewed by parents as appropriate for the purposes of control. Also, a conceptual shift may occur, where secondary administration of other punishments by another adult/institution is overtly (or covertly) sanctioned by parents.

In summary, the psychological capacity of children and adolescents to

give "valid consent" to ECT administration has been hotly debated. The expectation by professionals that minors will make rational, logical decisions (especially when in extremis), however, may be unrealistic. Even if the known long-term consequences of ECT have been made clear to children, it may be inappropriate to expect them to be able to assimilate this information meaningfully. In times of extreme psychological distress, minors may make critical decisions against their own interests. During periods of self-harm and self-neglect, minors often perpetuate negative cycles of self-destruction and self-damage. Adolescents, in particular, can become locked into self-destructive episodes of "acting out" and rebellion.

Advocacy

The complex dynamics between parents'/children's needs has raised questions about the necessity for advocacy services. (In this context, an advocate is expected to act in the child's optimum interests, as an unpaid "best friend"). In North America, especially Canada, such provision has been "institutionalized" into some services. However, most European health and social service systems have not yet established such provision (Baldwin and Barker, 1995). In the absence of formal advocacy services, the interests of children/adolescents sometimes have been represented (by default) by professional staff. By definition, however, paid staff will experience a core conflict of interest in such situations.

Inter-disciplinary teams

Physical therapies have retained an important place in the treatment of child/adolescent problems. In the inter-disciplinary team milieu, however, there has been a shared professional responsibility for choices about interventions. This alternative range should include (but not be limited to): behaviour modification, behaviour therapy, cognitive behaviour therapy, family therapy, individual psychotherapy, play therapy, counselling, environmental manipulation, and/or referral into special needs services.

There is a range of pedigree tried-and-tested alternative interventions with known outcomes for children who have behavioural/cognitive problems (e.g. Casey and Berman, 1985; Durlak, Furlman and Lampman, 1991; Forehand and Long, 1988; Frame, Robinson and Cuddy, 1992; Kazdin, 1987a, b; McMahon and Wells, 1989; Schaefer, Briesmeister and Fitton, 1984; Strain, Guralnick and Walker, 1986). A review of effective alternatives is beyond the scope of this paper, although these themes are discussed fully elsewhere (Baldwin and Jones, 1990, 1991; Baldwin and Oxlad, 1996; Jones and Baldwin, 1992; Oxlad and Baldwin, 1995).

Moral and ethical objections

Moral objections to the use of ECT with children and adolescents have been based on challenges about the appropriateness of allowing parents, guardians or professionals to give consent "on behalf of" juveniles and teenagers. The moral imperative in this complex environment should be first to guarantee the minor safety from further harm. (Paradoxically, medical practice was founded along a similar axis "primum non nocere"). Arguably, physicians' clinical freedoms to choose between rival treatments should be a *secondary* consideration in this specific clinical situation.

Reporting bias

The apparent vogue popularity of ECT in the 1990s is partly explained by the repackaging that has occurred within psychiatry. For example, clinical evidence confirming brain damage from ECT administration has been omitted in many contemporary accounts (Breggin, 1993; Cameron, 1994; Jones and Baldwin, 1992).

The effects of ECT administration have been compared to the physical damage resulting from severe head injuries (Symonds, 1966). Interpretation of other evidence has supported this belief, including observations that electro-shock treatments have produced tissue damage in the brain. Concomitant impairment of functioning also has been detected, and a reduced capacity to learn new behaviour (Lewis, 1967). Many leading contemporary psychiatric texts do not mention ECT use with minors; accounts of the resultant brain damage often have been omitted.

There has been unequivocal evidence of reporting bias and selectivity in the ECT literature. Moreover, many reviews in the field have omitted, or edited out, studies that reported the negative side-effects of ECT administration with minors. Accounts of permanent memory loss after ECT treatments have been progressively filtered out of the psychiatric literature (Cameron, 1994). For example, in 1958 Fink (arguably the "ECT product champion" in the USA) wrote that the biochemical basis for electroconvulsive therapy was similar to that of cranial-cerebral trauma. In contrast, in the 1990s "maintenance ECT" (sic) has been recommended for people who have relapsed quickly.

Evidence for physical and psychological damage after ECT administration has accumulated since the 1940s. A prominent psychiatrist, Salzman (1947), reported about: "malignant effects of shock therapy on the personality (sic) of the individual". He concluded that: "the most persistent impression obtained is that shock patients show a picture resembling the post-lobotomy syndrome".

The damage observed in ECT-administered individuals has been compared to the classic signs of damage to the frontal lobes (e.g. disinhibition, euphoria, blunting) (McClelland, 1986). In a study of 174 adults given ECT: "general and prominent" memory deficits were reported, with the conclusion that: "patients whose occupation requires intellectual ability are selected for treatment with caution" (Frank, 1990).

Discussion

In adult populations, the debate has remained unresolved about the degree, severity and prevalence of resulting brain damage from ECT administration. Exclusion of data in the psychiatric literature about the negative short and long-term effects from brain damage and memory loss, has created a climate to promote the "safety" (sic) of ECT administration.

Such over-selective reporting, however, suggests that ECT has been marketed to avoid negative feedback/censure from public opinion. Because of these distortions, practitioners have been denied access to vital information. In particular, outcome data, and information about contra-indications have not been made available to practitioners to assist their decision-making.

All practitioners, for example, have observed post-ECT amnesia years after its administration (Anderson, 1951). Similarly, Valentine (1986) has described memory loss for the sequence of events before ECT, and partial amnesia with "scattered" memory afterwards, including loss of recall for people, places and events. Practitioners should not ignore this evidence when addressing the needs of children and teenagers. Psychiatrists who plan to give ECT to children and adolescents first should assess the likely associated neurological damage. Some adolescent clients have described loss of recall three years after ECT administration, including the contents of a full academic year of study (e.g. Baldwin and Jones, 1990). Practitioners should therefore endeavour to obtain more reliable data sources when making clinical decisions in child/adolescent services. Establishment of *clinical guidelines* may assist with this process (Oxlad and Baldwin, 1995).

There is an absence of consensus amongst medical practitioners about the utility or appropriateness of ECT with minors. This has been a marker for the necessary protection from abuse for vulnerable clients under 18. A study of medical practitioners in one region demonstrated that one third of ECT administrations with adults was given by 15% of the consultants. The authors concluded that their survey: "throws up some embarrassing questions that remain to be answered" (Gill and Lambourne, 1981).

Differences between practitioners who "never use"/"sometimes use" ECT with minors should be investigated. The practice of practitioners who "often use" ECT should be further examined. The psychiatrist authors of one

survey (Pallis and Stoffelmayer, 1973) discovered that psychiatrists who favoured physical treatments had conservative social values, and were "tough-minded". They concluded that:

firstly psychiatrists should realise that there is an association between the social attitudes they hold and the treatment they recommend for their patients. Secondly, statements that are frequently made with some ideological fervour about the value of different treatments perhaps should be viewed with more caution. It is likely that if treatment orientation is embedded in general social attitudes, discussion about the advantages of the various treatments will not be guided by factual arguments (Pallis and Stoffelmayer, 1973).

To date, the clinical standards to monitor and evaluate the practice of ECT with children and adolescents have been woefully inadequate. Immediate protection is required for this vulnerable group, against the idiosyncrasies of individual practitioners, compelled by their own social attitudes and values to administer these inappropriate electric shocks.

Between 1982 and 1992 at least 60 UK children and adolescents were given ECT. Estimated prevalence rates indicate up to 3500 minors are currently given ECT in the USA each year (Thompson and Blaine, 1987). These data sources inevitably are gross underestimates, however, given the problems previously identified with data collection, case identification, case-finding and reporting biases. With this already at-risk client population, however, even one ECT administration is unacceptable. For legal, clinical, scientific, moral and ethical reasons, ECT administration with minors is unjustifiable, and should be discontinued.

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