

Reflections on Coercion in the Treatment of Severe Anorexia Nervosa

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Abstract: *Background:* The high mortality of severe anorexia nervosa causes clinicians to consider any legal avenues for coercing acutely-ill patients to remain in treatment or refeeding programs, such as mental health laws or adult guardianship laws. *Method:* Review of pattern of laws for coercing treatment in various jurisdictions and retrospective file analysis over 4.7 years for a specialist anorexia unit in the State of New South Wales, Australia, to isolate attributes associated with resort to two different avenues of legal coercion. *Results:* Coercion is most likely indicated for patients with more chronic histories (prior AN admissions), already known to the unit, where they present with other psychiatric illnesses and a low BMI. Compared to voluntary admissions, coerced patients were significantly more likely to experience the refeeding syndrome (an indicator of being seriously medically compromised). They were more likely to be tube fed and placed on a locked unit. *Limitations:* Sample size, limited variables and retrospective analysis method. *Conclusions:* The study suggests that, where available, clinicians will use legal coercion to help treat severe medical crisis situations, or manage behaviors such as vomiting, excessive exercise/sit-ups, or of absconding to no fixed abode when patients are very young.

Introduction

From a medico-legal perspective it is not the incidence of severe anorexia, but its characteristics and consequences, which distinguish it from other DSM-IV(R) eating disorders like bulimia nervosa (1). Experienced by up to one percent of young women (and occasionally young men) (2), anorexia nervosa differs *precisely because* it is such a serious, life-threatening condition (3). This feature tests the ethical limits of medicine, the state and the law in deciding whether to coerce patients into treatment (4). It is compounded by questions about whether anorexia is a traditional illness rather than a “syndrome” (5), and whether law should facilitate treatment interventions (6, 7).

In some jurisdictions — such as Israel and, until recently, also the State of New South Wales (NSW) in Australia — anorexia does not qualify as a mental illness warranting involuntary mental health admission and treatment. This outcome mainly hinges on the drafting “model” adopted to express the gateway definition of mental illness, rather than on medical

differences of opinion about the condition. There are three main definitional forms (8):

- A “*non-definition*” (or *circular definition*) model, where the meaning of “mental illness” is defined by the judiciary. In 1986 the New South Wales Supreme Court ruled that under the then definition in section 4 of its Mental Health Act 1958 anorexia was not a mental illness because this “syndrome” lacked the sharp “diagnostic criteria” of, for instance, a psychosis (5, 9, 10).
- A “*disorder of function*” or *consequence-based model*, such as that now contained in the NSW Mental Health Act 1990, that defines mental illness as a condition which temporarily or permanently impairs a person’s “mental functioning” and which is accompanied by “symptoms” such as delusions, hallucinations, serious disorders of thought form, a severe disturbance of mood, or sustained or repeated irrational behavior. This is a test which covers rather than excludes anorexia (*Matter of Ms CS*, 1999).
- The *third model*, like that in the neighboring Aus-

tralian state of Victoria, combining a functional test with a list of certain conditions, also catches anorexia because mental illness is interpreted to cover a “medical condition characterised by a significant disturbance of thought, mood, perception or memory” (10, 11).

The availability of legal coercion hinges not only on the way the law is written, but also its institutions and procedures. When courts decide about mental health committal (as in the U.S.A.) it is utilized less frequently than in Britain, for instance, where medical practitioners make the initial admission subject to tribunal review (12). The level of proof of mental illness or of any risk/harm to self or others is another key factor. So mental health committal for anorexia is rare in the U.S.A. (9), where mental health law has privileged individual liberty and insisted on a demonstrated high level of “risk” (13), ever since California’s Lanterman-Petris-Short Act of 1967 (13) and court rulings (14). That is one reason why mental health options are often overlooked in the U.S. for anorexia (15); another reason being complications posed by “managed care” financing (16).

Where law permits it, clinicians understandably contemplate using the law to help retain some of their most acutely-ill patients in treatment or refeeding programs, since absconding and treatment non-compliance complicates the risks associated with achieving the necessary fine calibration of nutrition to avoid the risk of “refeeding syndrome” — a potentially fatal (17, 18) disturbance in electrolyte, vitamin, mineral, bone and muscle homeostasis that occurs upon refeeding a patient who has experienced severe weight loss (18, 19), and a syndrome to which patients with anorexia nervosa are prone (17, 18, 20–21).

Some jurisdictions offer avenues in addition to mental health laws (10); clinicians may have access to adult guardianship laws, as is the case in NSW and New Zealand (22, 23). Quite diverse patterns of laws are found within the Australian (10, 24) and U.S. federal systems of law (25), as well as within Europe (26), and indeed internationally (22, 26). Such variance raises questions about possible impacts of legal interventions on therapeutic relationships (11), or the possible therapeutic advantages of preferring one form of intervention over another, including the type

of “hearing” to which applicants may be exposed (27). Other issues include the strategic uses of law as “bluff” to win patient cooperation (28), and differences in patient perceptions of coercion.

The clinical dilemma continues to be how best to physically and therapeutically manage pre-contemplative, near death patients. One of several understudied questions is understanding the factors influencing clinical decisions about *which* inpatients will be selected for coerced treatment by clinicians in specialist anorexia units (29). That is the subject of the present paper, based in part on analysis of data set gathered from a major Australian specialist anorexia treatment facility.

The sample

The sample comprised all 117 admissions to a specialist Australian anorexia program, over a period of nearly five years, where an eating disorder was recorded as the primary diagnosis. Twenty-five cases were discarded where the primary diagnosis was another eating disorder such as bulimia, or for co-morbid conditions such as depression or opiate overdose, such that they were not initially admitted to the specialist eating disorder program. There were 96 admissions, including some multiple admissions (up to five), covering 75 patients.

Twenty-seven admissions were under mental health committal or adult guardianship orders. Seven admissions considered for coercion resulted in patients agreeing to informal admission, following a “strategic” initiation and abandonment of resort to the law. Slightly over a third (36%) of admissions were under 20 years of age, just one-third of admissions were sole events within the sample period (a quarter had four or more admissions) and three-quarters were diagnosed with co-morbid conditions, with one-third having two or more such diagnoses. Approximately 40% of admissions were for less than three weeks, with a mean stay of 49 days.

Some sample characteristics were suggestive of being a candidate for use of coercive powers, such as young age at admission, critically low body mass indexes (BMIs), multiple prior admissions and co-morbid mental health conditions, so the data were analyzed to establish whether certain variables were statistically associated with use of coercion. The data were analyzed in two ways.

First, the total sample of 96 “episodes” of admission to the specialist anorexia unit was examined, irrespective of whether the same person re-appeared in some subsequent admissions. Correlates with those admission episodes were analyzed to isolate trends, or statistically significant differences between those admissions leading to coercion compared to those episodes where coercion was neither deployed nor considered. Data for *first* admissions (70 cases, 23 coerced and 47 not coerced) were also analyzed, leading to broadly similar findings.

The next section of the paper reports our findings about whether these “predisposing risk factors” were significantly more likely to appear within the legally coerced group.

Findings and Results

General findings

(a) Chronicity & co-morbid psychiatric conditions pre-dispose to coercion

Independent t tests were run in respect of the coerced and the uncoerced groups, in respect of 11 variables, as shown in Table A below.

Statistically significant results were obtained for

four variables: the prior number of admissions anywhere for anorexia nervosa ($p=0.006$), and the total number of admissions to the study site’s specialist unit (0.014), BMI on admission (0.05), and the number of co-morbid psychiatric conditions ($p=0.004$).

These data suggested that coercion is most likely indicated for patients with more chronic histories (prior AN admissions), already known to the unit, where they present with other psychiatric illnesses and a low BMI (discussed further below). Note that for number of prior admissions and number of co-morbid conditions, the values can include 0. Because of the bunching of values in this category (as there is for the informal patients), the significance tests, therefore, should be regarded as indicative only.

(b) Re-feeding syndrome predisposes to use of coercion in treatment

Five dichotomous variables able to be tested for significance in the data set included: (i) gender; (ii) diagnosis as purging or restrictive type; (iii) presence or absence of the previously explained “refeeding syndrome”; (iv) tube feeding or not; and (v) whether held in a locked or open ward (Table B).

Table A. All Admission Episodes: Admission variables against admission status, independent t test

Variable	Group		p value
	Informal	Coerced	
Admissions to the specialist anorexia unit	1.42±1.12	1.76±1.53	0.243
Total psychiatric & eating disorder admissions to unit	1.74±2.34	3.82±3.47	0.014*
Total of all admissions for AN	1.74±2.34	3.88±3.37	0.006*
Age	24.84yr±7.46	24.5yrs±8.57	0.848
Duration admission (days)	47.33d±53.08	51.69d±46.99	0.713
BMI admission	14.03±1.84	13.2±1.67	0.05*
BMI discharge	15.38±2.264	14.88±1.427	0.209
Weight gain during admission (kg)	3.66kg±5.26kg	4.96kg±6.56 kg	0.322
Duration of illness	6.28yrs±6.45	8.14yrs±7.62	0.248
Number of psychiatric co-morbidities	0.99±0.876	2.00±1.575	0.004**
Number of medical co-morbidities	0.64±1.22	1.00±1.72	0.259

N=96

* significant ** very significant.

Table B. *Coercion and Dichotomous Variables (chi square)*

Variable	Group		P value
	Informal	Coerced	
Women/men	67/3	25/1	1.00
Purging/ restrictive	23/47	6/20	0.354
Refeeding syndrome (rfs)/no rfs	12/58	10/16	0.027* Pearson's chi
Attempted tube feeding/no tube feeding	11/59	12/14	0.002* Pearson's chi
Locked ward/open ward	1/69	11/15	0.000** Fischers

* statistically significant; ** statistically very significant

As shown in Table B above, neither gender ($p=1$), nor the type of anorexia manifestation ($p=0.354$) proved significant. However, statistically significant associations were found between use of coercion and presence of refeeding syndrome ($p=0.027$), and the use of tube feeding ($p=0.002$) or locked wards (Fishers test).

Detailed Findings

Several features of the data findings warranted more extended consideration.

(a) Mental health co-morbidity

As already established, mental health co-morbidity was statistically significant in its own right. However, the sharpness, and complexity, of the differences between the two groups are highlighted below.

The data revealed that, even for informal admissions, a co-morbid psychiatric diagnosis was not uncommon, accounting for over two-thirds of the sample. However, as a plotting of the two groups revealed (not reproduced), the coerced group differs not only in the *proportion* of those with such co-morbidity (85% of the coerced group against 70% of the voluntary group), but also — most dramatically — in the *density* of such diagnoses (with the coerced group having more co-morbid diagnoses in excess of two such conditions).

The coerced patients tended to have a much greater number of co-morbid psychiatric diagnoses than was the case with their non-coerced counterparts, suggesting that the presence of that psychiatric component added significant “weight” to the clinical indications for seeking involuntary mental health committal.

(b) The significance of low presenting BMIs

The data reported in Table A revealed that a critically low BMI was associated with a likelihood of a coerced admission ($p=0.05$).

Thus, 27.9% (7 instances) of admissions within the coerced sample had a BMI of less than 12 at the point of admission (compared to 8.6% of the un-coerced group). Indeed, nearly two-thirds (61.5%) of that sample had a BMI less than 14. Since some of those committed under the Act were on a primary diagnosis of a psychiatric condition (where low BMIs would not feature significantly), the BMI average for the coerced group would be artificially boosted to a degree. Almost half of the informal admissions (47.2%) also had a BMI less than 14, which carries significant mortality and co-morbid health consequences, while a BMI of 10 approximates the point where humans die of starvation (30).

However, the *composition* of BMIs within the two groups remains quite distinctive, as shown by plotting the BMIs for the voluntary and the coerced group (not included), which highlighted the statistically significant difference between coerced and non-coerced BMIs ($p=0.050$). Coerced patients had a lower BMI in the 10–12 very severely emaciated category. Coerced patients are life threateningly malnourished. Conversely there are relatively more informal patients among those with BMIs of 16 or more.

(c) Multiple prior admissions as a predictor of coercion

Coerced patients (80%) are more likely than informal patients (57%) to have been previously admitted for the treatment of anorexia nervosa or related con-

ditions. Over a third of the coerced patients had been admitted six or more times previously, compared to only one in ten of the informal patients.

(d) The significance of a very young admission age Youth did not prove to be statistically significant as such (Table A).

However, 30.8% (8 cases) in the coerced admissions group were under the age of 18 years. This compares to 10% (7 cases) of informal admissions to the unit. Likewise, 42.3% (11 cases) of coerced admissions were under the age of 20, as against 27% (19 cases) in the informal admissions group. Coerced admissions, though, were also somewhat over-represented in the older groups, perhaps indicating a long-term problem.

Conversely, the informal admissions were most concentrated in the 20s age group.

(e) The pattern of associations found in “first admissions” data

The results of analysis of the 70 individual first admission cases were similar to that reported above, with two exceptions.

First, when repeat admissions were excluded, to focus on the *first* admission, the patients experiencing coercion were statistically less likely to reach as high a BMI on discharge than did the informal admissions group. This suggests that coercion was being deployed for the group of patients showing signs of an inability to challenge (or “change”) their eating disorder because of lack of “insight” into their condition — i.e., precontemplative/ contemplative of change (31).

Secondly, there was a more marked trend for coercion to be obtained for younger (under 18 years) patients with higher numbers of prior admissions to the specialist unit. Such patients tended to be better known to staff in the unit, and to have medically compromised weight (life-threatening BMIs of 10–12) and significantly developed refeeding syndrome.

Discussion

It can be an extremely challenging task to manage an acute crisis when treating patients with severe anorexia nervosa. Most such patients lack insight to the severity of either their psychological or medical con-

dition, and mental health tribunals have been found to tend to reach a similar conclusion (10).

Implications of the study data

This study draws on limited data available from a retrospective file analysis of just under 100 admissions to a specialist anorexia unit over five years. With such a low incidence condition as severe anorexia, this is a respectable sample size, but the analysis is necessarily constrained by its retrospective character. The proportion of compulsory admissions (27 of 96) was nearly double the rates reported in the Iowa and U.K. studies (23, 29), but otherwise is unexceptional. The study found that patients admitted to the specialist unit were more likely to have been coerced if they had frequent previous admissions for eating disorders, had a very low BMI, were known to the unit or had more extensive psychiatric co-morbidities. Compared to voluntary admissions, coerced patients were significantly more likely to experience the refeeding syndrome (an indicator of being seriously medically compromised). They were more likely to be tube fed and placed on a locked unit. Younger age proved to be a predictor of use of coercion, but this failed to reach statistical significance.

In one sense, this was not an unexpected finding for the unit to deploy coercion with those younger patients, with very low BMIs who are well known to the staff of the unit (and other treatment personnel), who have a complicated psychiatric presentation and a very compromised physical status. These are not the typical mild cases of anorexia nervosa (first presentation) who usually are more responsive to therapeutic interventions, where insight and motivation make it much easier to establish rapport with the patient.

As a result of their compromised and often dire medical status (very low BMI — usually 10–12) and the presence of refeeding syndrome, clinicians are under pressure to take the necessary action to ensure that the patient does not become critically ill and even die (29). It makes good clinical sense to find a way to ensure that the patient obtains nasogastric feeding, since only such feeding gives confidence that the slow delivery of nutrients can be reliably delivered to avoid the potential catastrophic consequence of refeeding syndrome (30). Those patients who are treated on a voluntary basis in a medical or

psychiatric ward often pose major management difficulties as well, of course. Excessive exercise, purging behaviors, or equivocation about whether to continue to voluntarily accept nasogastric feeding may at times lead to the consideration of a legal order so as to better reinforce the treatment strategies (including intensive one-on-one nursing) developed by the clinical team.

The statistically significant higher incidence of tube feeding and admission to the locked ward reported above are not simply by-products of coercive orders which facilitate such management. Rather, we suggest that they are really the *precursors* to obtaining such orders. They reflect the clinical difficulties of trying to help treat severe medical crisis situations, or manage behaviors such as vomiting, excessive exercise/sit-ups, or of absconding to no fixed abode when very young.

Wider implications of studies on mental health or other coercion in anorexia treatment

Clinical competence draws a distinction between coercing a patient into physical intervention to save her life, while accepting that a patient cannot be coerced into treatment merely for her anorexia nervosa. The policy of the specialist unit in this study on the question of when to use the Mental Health Act had evolved to concentrating on preserving physical integrity and safety of patients (rather than achieve acceptable BMIs or other goals pursued by other units elsewhere). Given also that adult guardianship has usually been tested as a precursor to resort to mental health committal, these cases often presented major dilemmas once features such as refeeding syndrome emerged. With neither family (such as parents/partners) nor third parties (such as an appointed guardian) able either to provide alternative community-based management, or to bring informal suasion/support to bear to encourage compliance with treatment regimes — clinicians have few remaining options.

Persuasion of patients of the gravity of their medically compromised status is often a forlorn prospect. While clear they may not wish to die, many such patients lack the “insight” to grasp the imminence of the threat to their survival. Certainly “insight” is somewhat of an ill-defined concept in medicine and

mental health law (5), serving as a proxy in part for difficult value choices.

The dilemma is, if we accept some cases need medical treatment, then who should be coerced and how is this best achieved? By the nature of the illness, most patients will react badly to any re-nutrition. As their reasoning is often impaired by the presence of an overlay of other mental health problems and the possibility of brain atrophy, it follows that their capacity for reasoned judgement may be further hindered. How to minimize feelings of anger or breach of the therapeutic relationship is a hard judgement to make. The urgency of nutritional intervention at these critical points in the treatment history makes it difficult for clinicians to salvage the therapeutic alliance. Adult guardianship might be less likely to give rise to emotions of resentment, anger, etc., but its clinical efficacy has been shown to be compromised in these settings (31).

Given that there has been such a dearth of rigorous scientific assessment of the therapeutic (or potentially harmful) consequences of various features of mental health committal it is not surprising that many key issues still remain unanswered in the case of anorexia. Questions such as how mental health committals can be made to be more productive and more acceptable from the patient perspective are in urgent need of address (32). Further questions requiring considered thought include the period of time for which patients should be committed, as our evidence shows that it often comprises a very small fraction of the life-course of anorexia nervosa (10). Finally, what advocacy protections might be put in place to monitor treatment, by recreating elements of the “brokering” role of the adult guardian (24)?

These are some of the remaining challenges in searching out the most “therapeutic” option for treating such cases (11).

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