The Rise of Plant-Based Diets in Eating Disorders

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The Vegan Society defines veganism as 'a way of living which seeks to exclude, as far as is possible and practical, all forms of exploitation of, and cruelty to, animals for food, clothing or any other purpose'. It is an ethical movement, which is a legally protected characteristic equivalent to Halal or Kosher diets.

The number of vegans in the UK quadrupled between 2014 and 2019.[1] In 2022, over 600,000 people signed up for Vegan January (Veganuary), with 83% of these participates intending permanent diet changes towards plant-based eating.[2] The popularity of plant-based diets is also reflected in increased offers of vegan choices in food outlets, and supermarket own brand ranges.

Research suggests several reasons for adopting a plant-based lifestyle: concerns for the environment, dietary sustainability, and animal welfare, plus individual concerns around disease prevention and weight loss.[3] The evidence behind the health claims is less robust, but nonetheless a systemic review of observational studies veganism suggests that veganism is associated with a lower BMI in some populations.[4]

In 2019, The Vegan Society surveyed 10,000 people in the UK[5] and found the following:

- At least 1.05% of the population aged 15 and over are now following a vegan diet
- Young people making more ethical and compassionate choices make up almost half of all vegans, with 43% in the 15-34 age category
- Most vegans live in urban areas (88%) compared with rural areas (12%), with a 22% in London
- Twice as many vegans identify as female (63%) than male (37%).

It is, therefore, no surprise that anyone interested in food or nutrition, especially females in urban areas, would be interested in plant-based diets. Furthermore, people at risk of developing eating disorders may be attracted to a diet that seems to address both health and ethical concerns. Risk factors for eating disorders include perfectionism, following a rules-based lifestyle, black and white thinking patterns, and difficulties in managing uncertainty and anxiety.[6] A diet that has a set of rules to follow is attractive when you feel anxious or uncertain. Disordered eating often starts with the development of problematic thoughts and behaviours around food that are underpinned by fear of weight gain and avoiding or restricting types of food. A common path into eating disorders is one of increasing restriction. This starts with following certain rules about eating; for example, not eating before midday or becoming gluten free. We then see a pattern of increasing restriction emerging; for example, avoiding processed foods or going vegetarian, which can step up to becoming vegan.

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As diet becomes increasingly restricted there is a knock-on impact on brain nutrition. Dieting and weight loss impact directly on the brain and cause a shift towards a narrow and rigid thinking style, with excessive focus on detail.[7] This is expressed through rule-bound eating and behaviours, such as checking labels, calorie counting or weighing food. Patients with eating disorders tend to struggle with flexibility and this makes patients more likely to follow a diet that has specific rules, than one which is based on flexibility. Thus, a strict vegan diet is more likely to be followed than a plant-based, or flexitarian approach.

The link between patients adopting a vegetarian diet and disordered eating is well documented.[8, 9, 10, 11] Adoption of a vegan diet, coinciding with the development of Anorexia Nervosa, can be part of the disorder, rather than a reflection of the individual's vegan beliefs; this needs to be considered at assessment. Dietitian Sarah Fuller and colleagues conducted a flash survey on 1st March 2018[12] to identify how many patients receiving either specialist eating disorder unit (SEDU) treatment or day hospital treatment identified as vegan on admission. Within adult services, rates of veganism were reported as 11% in SEDU and 6.4% in the day hospitals. In children and young people services (CYP), the rates were 16% in the SEDUs and 8.1% in the day hospitals. Zuromski in the USA[13] found that 34.8% of patients in residential treatment for an eating disorder were vegetarian, compared to 6.8% in a nonclinical group. The majority of those presenting to eating disorder services have Anorexia Nervosa or mixed presentations. The incidence of veganism in Bulimia Nervosa and Binge Eating Disorder is unknown.

Initial treatment for eating disorders involves stabilisation of weight and physical health, followed by MDT treatments to address rigid thinking styles, underlying psychological vulnerabilities, psychosocial difficulties, and nutritional restoration. The challenge for teams treating patients who present as vegan at assessment is how and when to discuss veganism and its potential entanglement within the eating disorder. This task often falls to the dietitians' team, who will have a key role in supporting the person to return to normal eating and a healthy weight. The British Dietetic Association (BDA) has guidance for dietitians on how to approach vegan diets in patients with eating disorders.[3] The guidance highlights the challenges in unpicking patients' desire for a vegan diet and its potential role in the development and maintenance of an eating disorder. Consensuses among dietitians is that it is best to initially accept any self-imposed diet restrictions that are safe, and to focus on the task of stabilising weight and physical health.

Veganism can be explored during subsequent treatment where there is more time, less risk and brain nutrition has been partly restored, so thinking is less rigid and detailed. However, for CYP, where family-based treatments are key, the decision is guided by parents and the treatment team. The Royal College of Physicians (RCP) and BDA[14] have issued a joint consensus statement on managing veganism within the treatment of eating disorders. They suggest that treating someone with Anorexia Nervosa requires respecting that person's religion or beliefs, including veganism, while ensuring that they are not discriminated against in terms of the quality of treatment they receive. However, *"If the treating team and/or young person's family feel that the vegan diet is strongly linked to the development of the eating disorder, then the goal should be to re-establish their pre-illness diet in line with family-based treatment."*[14]

We do not have any research evidence looking at the proportion of patients choosing to follow a vegan diet on recovery from an eating disorder, but specialist dietitians report that whilst less than at admission to services, a significant number of patients, especially those with autism, will continue to follow a vegan diet. The specialist dietitian has a key role to play in supporting refeeding and recovery on a vegan diet. A vegan specific vitamin and mineral supplement is required to meet vitamin D, selenium, iodine, B12 and omega-3 as these would not be met across the majority of refeeding meal plans. Calcium may be required dependent on intakes of calcium rich foods.

Refeeding patients with eating disorders at low weights involves monitoring phosphate, with a drop in phosphate indicating the possible incidence of refeeding syndrome. Managing refeeding without inducing refeeding syndrome is a highly specialist skill, and dietitians working in eating disorders use guidance from Medical Emergencies in Eating Disorders (MEED)

to inform practice.[15] One of the cornerstones of safe refeeding is aiming for a high phosphate diet. This is challenging when dairy products are not available to use. The avoidance of dairy products can potentially lead to lower levels of baseline micronutrients. Another of the key challenges for dietitians in refeeding is achieving enough calories for weight restoration on a plant-based diet. Patients may need up to 80 Kcals/kg for weight restoration of 1 kg a week.[16] To consume enough calories on a vegan diet, fibre and bulk are significantly increased which negatively impacts on gut function. Gut function is already impaired in patients who are undernourished, with delayed gastric emptying and constipation as common presenting symptoms. Sip feeds or diet supplements are very helpful for managing delayed gastric emptying and premature satiety whilst achieving high calorie intake in refeeding, but at present there are only limited products available that are vegan.

In line with MEED guidance, patients who present at very low weight or in crisis may require nasogastric tube (NGT) feeding, and in some cases, NGT feeding under restraint, if they lack capacity and need to be detained to be fed. Patients under section, who are treated against their will, are subject to the legal framework, including the concept of least restrictive practice. Least restrictive practice states that treatments given must be the least restrictive possible to be effective. For example, a person could not be given an NGT and enterally fed if they were able to drink sip-feeds that would provide equal nutrition. Again, this area is a huge challenge for dietitians and treating teams as there are no ready-to-drink nutritionally complete vegan sip feed nor enteral feeds available, thus having no alternative strategy to help them meet their required nutritional prescription if patients cannot meet their needs through diet alone.

The BDA vegan and eating disorders guidance[3] states the reasons that the current main manufacturers give for their products not being vegan:

- Abbott do not produce a vegan sip feed or enteral feed as their products contain milk. Some oral nutritional supplements contain E120 a food colouring (cochineal) for strawberry flavoured products
- Nutricia do not currently produce a vegan sip feed or enteral feed as many products contain milk proteins, in some products the vitamin D is derived from the wool of healthy sheep whereas some products contain carminic acid
- Fresenius Kabi do not produce a sip feed or enteral feed that is suitable as most of their products contain cow's milk protein and the carrier for vitamin A is from fish gelatine and contain fish oil.

The challenge in meeting the needs of nutritional rehabilitation on a vegan diet is further impacted by catering within NHS trusts, which dietitians report have been slow to adapt to vegan diets and is often very limited in the range offered. This results in unequal treatment of those who follow vegan diets and is challenging for patients, families and the clinicians who are supporting nutritional rehabilitation.

In summary

There is a higher incidence of vegan diets in patients presenting with eating disorders, and thus dietitians working in the field need specialist knowledge and guidance around safe refeeding, weight restoration and nutritional rehabilitation on vegan diets. They also need to be skilled communicators to support the exploration of veganism within the development and maintenance of eating disorders. Currently, the biggest challenges faced are barriers to vegan food provision and suitable vegan sip feeds/enteral feeds, and high-quality diet access to comply with equal access to treatment for someone following a vegan diet. The joint RCP/BDA consensus statement[14] states: *"The pharmaceutical industry needs to lead developments of medications, supplement drinks and enteral feeds that are suitable for vegans in order to address the current disparity."*

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