

Balance and the ‘good’ diabetic in Britain, c.1900–60

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Introduction

Reporting on the performance of a notable debutant at the Wimbledon tennis championship of 1951, the *Diabetic Journal*, a magazine produced for patients by the Diabetic Association, set the scene for a dramatic underdog story. ‘When Hamilton Richardson stepped on to Wimbledon’s No.1 Court on June 27th last, scarcely any of the spectators ... could have believed he had any chance against his opponent, Budge Patty.’ Patty ‘was the world’s singles champion of the year before’, whereas Richardson ‘was only eighteen years of age, and far less experienced’. Most importantly, ‘to cap his disadvantages’, Richardson ‘was a chronic diabetic’. Against all such odds, Richardson triumphed.

Success, the *Journal* keenly pointed out, was founded on Richardson learning ‘how to control his diabetes’ and restoring short-term physiological balance to his body. ‘As every “good” diabetic on insulin knows’, the article explained, ‘violent exercise rapidly burns up sugar in the blood, and, when playing games, great care must be taken to keep up the blood sugar to its right level and so avoid an insulin reaction.’ To win, Richardson needed to ‘study thoroughly the likely effect on his blood sugar of a series of hard games and take precautions’. It was this action that ‘enabled him to maintain a diabetic balance throughout’.¹

This chapter explores how clinicians and Britain’s first patient organisation – the Diabetic (later, British Diabetic) Association (BDA) – constituted the ‘good diabetic’ as one able to undertake considerable

self-care in line with medical advice during the first half of the twentieth century. Following the work of David Armstrong among others, it suggests that the self-caring 'diabetic' was not a given entity. Instead, through medical innovation, training and collective action, the 'good diabetic' was a figure who had to be made in relation to the shifting institutional and political structures of interwar and early post-war Britain.²

As the Richardson article suggests, concepts of balance were integral to visions of the 'good diabetic' during this period. Clinical and lay texts framed diabetes as a disease of physiological imbalance, a metabolic disturbance caused by an insufficient supply of endogenous insulin, and marked by biochemical deviations, most notably elevated blood sugar (hyperglycaemia) and, in the worst cases, acid bodies (ketones) in the blood. Treatment, moreover, was predicated on restoring normal function through a balance of diet and insulin supply. Although the boundaries of physiological balance were debated over this period, all practitioners subscribed to longitudinal disease management by professionals and patients, and good patients were those who undertook the quotidian actions necessary to keep their body in both short- and long-term equilibrium.

The discussion of Richardson's 'diabetic victory' also highlights how concerns about emotional and psychological stability permeated British medical and lay discussion of diabetes over the first half of the twentieth century. During the 1900s and 1910s, doctors framed mental and emotional balance as directly connected to physiological processes. Trauma or upset was believed to provoke or worsen diabetes via the nervous system, and clinicians prescribed tranquillity and moderation as part of their treatment.³ By the 1920s and 1930s, clinical and lay articles also noted the emotional and psychological problems that patients with long-term diseases could face. They outlined the need to negotiate the Scylla of anxiety and depression that could follow diagnosis and constant (self-)surveillance, and the Charybdis of complacency that might accompany reassurance. Such a challenge assumed individualised and public forms, as an alliance of patients and practitioners sought to challenge discrimination and negative perceptions of diabetes. Offering self-care advice, idealising 'the diabetic life', and celebrating achievements of public figures with diabetes were key strategies designed to promote emotional and psychological balance and well-being.⁴

In discussing the plurality of balances involved in diabetes management during the first half of the twentieth century, this chapter extends recent discussion of how political, medical and popular lay agencies came to reread wide areas of governance and everyday life in psychological and emotional terms during the interwar and early post-war period.⁵ Though efforts to constitute the 'good diabetic' were rarely based on systematic or academic models of 'depth psychology' such as psychoanalysis, they nonetheless constituted affective relations as central to human behaviour, and sought to subject psychological life to management in the name of health.⁶ Indeed, even when programmes of balance were coded in classic masculine values of rational self-control, they operated as forms of psychological management; the suggestion that health could be secured through knowledge and individual will offered the reassurance of control to people whose bodily integrity had seemingly been compromised.⁷

This medical and lay interest in the emotional and psychological life of people with diabetes was thus central to efforts to constitute new subject positions for patients, organised around physiological balance.⁸ Self-care, it will be argued, was considered essential in light of the insufficiencies of British healthcare, and balanced selves were increasingly needed for effective production and civic life.⁹ Yet, as this chapter will also highlight, balance was not solely deputed to individuals. Not only would self-care be supported by a range of other actors, but it formed only part of a broader constellation of interventions by healthcare professionals, the state and organised patients.¹⁰ By examining the boundaries of balance and self in the specific confines of British diabetes care, therefore, it is hoped that this chapter will draw attention to the complex interplay of power, politics and medicine in the constitution of identity, and set out relations explored further in the chapters that follow.¹¹

Physiological and therapeutic balance in diabetes, c.1900–50

Medical understandings of diabetes during the early decades of the twentieth century were permeated by concepts of balance and stability, owing to a growing influence of physiological perspectives on clinical medicine.¹² Gradually revitalising concepts of illness as disorder, textbooks and articles of the 1910s framed diabetes as a 'disturbance' of metabolic function.¹³ In health, physiological perspectives suggested,

ingested food would be broken down into constituent parts, and would either be used immediately as energy or be stored for later use. In diabetes, however, impaired processes meant that the body was unable to 'properly utilise carbohydrate', resulting in a characteristic elevation of blood glucose levels that would pass into the urine.¹⁴ Moreover, without effective carbohydrate metabolism 'the incomplete combustion of fats' would produce dangerous acid bodies that heralded the onset of coma.¹⁵

Building on these insights, one London specialist declared in 1912 that 'the aim of modern treatment in diabetes' was 'to balance the diet in such a way that nutrition is as perfect as possible without ... unnecessary strain on the organs of metabolism in any direction.'¹⁶ During this period, practitioners devised managerial frameworks of ongoing surveillance and therapeutic adjustment to achieve this balance.¹⁷ Doctors and physiologists with a special interest in diabetes disagreed on the exact composition of diets, and whether periods of fasting were necessary.¹⁸ They nonetheless recommended strict limits on dietary intake, and that the quantifiable effects on glycosuria (sugar in urine) and ketonuria (acid in urine) be monitored.¹⁹ Although not completely disregarding a patient's subjective assessment – nor marginalising the classic symptoms of extreme thirst, hunger, urination and wasting – experts suggested that changes in biochemical metrics should strongly influence prescriptions and the subsequent longer-term 'titration' of dietary therapy.²⁰

The isolation of insulin, and the development of insulin therapy, cemented these managerial practices and extended equilibrium-centred frameworks for understanding diabetes.²¹ By the mid-1920s, practitioners were describing insulin as the regulatory agent for the body's self-correcting metabolism. 'The normal pancreas', wrote the pre-eminent British diabetes specialist R. D. Lawrence (King's College Hospital, London), 'produces amounts of insulin which vary naturally with the carbohydrate intake, and normal metabolism is maintained by a balance between the carbohydrate of the food and the endogenous insulin of the body.'²² Insulin, Lawrence suggested, was the 'hand that holds the reins' of the carbohydrate metabolism, 'the ignition spark which controls and regulates the combustion.'²³ Treatment once more focused on restoring order: 'In diabetes, where insulin is deficient, the diet and insulin have to be balanced artificially to produce normal metabolism',

either by controlling diet, or 'if this balance cannot be achieved without too great [a] restriction', then through dietary control and insulin 'added by injection'.²⁴

These balance-oriented explanations of causation and treatment were broadly accepted by practitioners throughout the interwar and post-war decades, although they were gradually challenged and adjusted. For example, Harold Himsworth (Professor of Medicine, University College Hospital, London) proposed in 1949 that diabetes was a syndrome. Unlike a disease, the syndrome had 'its philosophical basis ... in a chain of physiological processes, interference with which at any point produces the same impairment of bodily function'.²⁵ This suggestion emerged from Himsworth's earlier experimental work, in which he hypothesised that two clinical types of diabetes arose from different impairments.²⁶ Insulin insensitivity was considered a cause of diabetes in generally older, overweight patients with insidious onsets and who did not require injections for effective management; and deficiency of insulin was held as a cause of the condition in generally younger, thinner patients with acute onsets, and who were dependent on, and sensitive to, injected insulin. This plurality of possible mechanisms also found expression in neo-humoral frameworks that remained persistent throughout the century, with researchers and drug manufacturers also implicating an over- or undersupply of insulin antagonists and other hormones in glycaemic disorder.²⁷

Despite clinicians agreeing over the importance of managerial approaches to care, the exact meaning of therapeutic balance – how it should be defined and monitored – was subject to dispute.²⁸ Initial controversies emerged during the 1920s in relation to blood testing, and the achievability of near-normal blood sugars. For many physiologically minded practitioners, normoglycaemia provided the ideal aim of treatment, believing it allowed the pancreas (and thus carbohydrate metabolism) to recover from the exhaustion underpinning diabetes.²⁹ However, this practice required regular blood sugar examinations, which were difficult to perform outside of sophisticated teaching hospitals. Furthermore, the required regulations on diet, insulin timing and physical activity could be punishing for patients.³⁰ Practitioners with more traditionally clinical backgrounds, therefore, tended to moderate their demands. They gradually adjusted dietary prescriptions to alleviate the distress of patients with acutely severe diabetes, and suggested

that urinary monitoring – and thus the less demanding goal of minimising glycosuria – could provide the basis of effective treatment.³¹

More vigorous opposition to normoglycaemia arose, at least discursively, in the promotion of almost unrestricted ‘free diets’ between the 1930s and 1950s.³² Unlike the majority of clinicians (and the Diabetic Association), proponents of free dieting confidently believed that ‘it has never been shown that a high blood sugar *per se* did anybody any harm.’³³ As such, these practitioners rejected clinical approaches based on the most common parameters of therapeutic and physiological balance (hyperglycaemia and glycosuria) for imposing regulations that impinged unnecessarily on patient well-being. Instead, they argued for a robust rebalancing of clinical focus towards the subjective feelings of the patient. They recommended matching insulin intake to appetite in non-obese patients, and accepted only the appearance of ketonuria as indication that any resulting physiological imbalance might threaten patient health. Provided no physiological signs of acute, critical imbalance were present, free-diet clinicians were happy to forgo restrictions and assess health based on a patient’s outlook, vigour and ability to happily live and work.³⁴

Tensions between short-term and long-term physiological balance, and between the relative weight afforded to various clinical considerations in diabetes care, also manifested in intertwined debates around long-term complications. For advocates of free diets, the ever-growing list of complications noted from the 1930s onwards – such as blindness, kidney failure or cardiovascular disease – were an inevitable long-term outcome of diabetes.³⁵ Other doctors, by contrast, practised under the belief that ‘the surest way to avoid such complications is to maintain the best blood-sugar control compatible with safety and a reasonably normal mode of life.’³⁶ This was despite admitting that the evidence for a relationship between persistent hyperglycaemia and complications was contentious, making it impossible to ‘answer the question dogmatically.’³⁷ At the heart of the clinical dilemma, however, was the potential conflict between different temporalities of balance. For many patients, their errant bodies, social and financial obstacles, and competing priorities militated against daily maintenance of physiological balance, while control was impossible while they were asleep.³⁸ Relaxing an emphasis on metabolic control in treatment plans could alleviate the conflicts between social life and biological needs, but only at the

cost of potentially serious problems in the long term. For methodological and epistemological purposes, researchers were unable to produce convincing evidence about the effects of control until the 1980s and 1990s, and clinical decisions were strongly guided by a doctor's beliefs and cultural values.³⁹ How to weigh the certainty of the present against the possibilities of the future, however, remained a persistent concern over the century.

Self-care in British diabetes management

For the most part, 'free diets' appeared to gain little support among British practitioners. Mid-century surveys indicated that some physicians might allow for mild hyperglycaemia (but not uncontrolled blood sugars), and they still imposed regulations for diet.⁴⁰ Whatever their goal, managerial frameworks and self-care practices remained an important element of long-term diabetes treatment. Self-care had been practised in diabetes care since ancient Greek physicians first used the term 'diabetes' to describe a symptomatic state of persistent urination, extreme thirst, and quick and painful wasting.⁴¹ Followers of humoral traditions had prescribed a mixture of regimen changes, drug treatments and dietary plans in a bid to restore equilibrium, a broad outline that persisted through to the twentieth century despite radical changes in content and rationale.⁴² With the development of the hospital system in Britain, and the spread of scientific dieting for diabetes in the early 1900s, initiating treatment could require lengthy institutionalisation, at least where patients received charitable admission to hospital or could afford private care. Doctors gradually placed less emphasis on hospital admission over the interwar period, even for starting insulin, but once admitted patients could stay for weeks to titrate dose and receive education about injections.⁴³

Nonetheless, much as physicians praised the control achievable on the ward, patients could not be retained forever. In the absence of Soviet-style control and distribution of clinical facilities and expertise, Britain's mixed economy of healthcare meant that 'the exigencies' of practice made it 'impossible' for doctors to 'see a patient twice, or even once at a specified time' for injections, and 'the cost to the patient [of such an approach] would be prohibitive.'⁴⁴ Only workers whose income was low enough to be eligible for the government-backed National Insurance

programme could routinely access medical expertise and prescriptions free at the point of use, and then coverage was only for community-based general practitioners. Of course, for these individuals, access to state-funded provision was tied to the capacity for work, which was often incompatible with rigidly timed oversight and treatment.

The institutional and cultural connections between work, healthy behaviour and citizenship also underpinned continued emphasis on self-care in the post-war period. The creation of the National Health Service in 1948 nationalised Britain's hospitals and secured universal coverage for primary care in general practice.⁴⁵ Healthcare would now be free for all at the point of use, and people with diabetes could either see their GP or be referred to specialist outpatient clinics that had emerged in major teaching hospitals during the 1920s.⁴⁶ Nonetheless, although some local innovations extended access to daily care to more vulnerable populations (such as the rural elderly), self-care remained an essential part of diabetes management.⁴⁷ Persistent resource shortages meant that there was an insufficient supply of labour to deliver personalised care without a substantial reworking of institutional arrangements. Politically, the impulse to self-care had also been built into Britain's universalist welfare state. Framed as a universal social right, post-war welfare was predicated on able-bodied citizens engaging in productive activity and paying taxes relative to their means.⁴⁸ Universal services in this instance would free the citizenry from inequitable obstacles to health, while simultaneously enabling them to practise the 'laws of health' in pursuit of national well-being.⁴⁹ Furthermore, as historians like Virginia Berridge and Gareth Millward have demonstrated, the state and various 'publics' placed extra expectations on the citizen with respect to healthcare, such as an expectation to follow medical instructions and health education advice.⁵⁰ Self-care in pursuit of physiological balance thus became an act of ongoing health citizenship, enabling patients to undertake productive activity and not 'drain' welfare resources.⁵¹

For institutional, political and cultural reasons, therefore, doctors and patients alike saw self-care as central to the longitudinal care of diabetes, and as in previous centuries patients were charged with following a prescribed regimen.⁵² The tasks involved in self-care, however, expanded in managerial approaches to treatment, and with new technologies. By the 1920s, self-testing became essential. Writing on 'prognosis in diabetes'

on the cusp of insulin treatment, an Edinburgh clinician suggested that 'regular weighing once a week is necessary; loss of weight usually means glycosuria.' As a precaution, 'the patient should also know how to recognise [urinary] sugar ... and he should examine a sample of the 24 hours urine daily.'⁵³ This procedure was not straightforward. Until at least the 1950s, patients testing for glycosuria or ketonuria were required to heat a test tube of their own urine, combined with a chemical reagent, for around three minutes (usually over a stove or Bunsen burner), and then compare the colour of the cooled sample with a coded strip. Accidents were rather unpleasant. Nevertheless, monitoring was designed to inform both quotidian care and medical oversight, with doctors using the data recorded at regular consultations.⁵⁴ Following the spread of insulin therapy, the daily work of self-care was also increased by the essential task of daily injections and equipment care, and some doctors reiterated the importance of self-testing (and even food weighing) for these patients.⁵⁵

As clinicians noted, however, a patient's capacity for, and commitment to, self-management could not be presumed.⁵⁶ The 'self' dedicated to self-care had to be created.⁵⁷ Training patients on the wards was one direct way to reorient a patient's priorities towards long-term physiological and therapeutic balance, but there were others. Some clinicians believed that self-monitoring – both the practice of urinalysis and the recording of results – was essential for cultivating patient dedication, with self-care helping to constitute the self that cared. For instance, a Manchester-based clinician suggested that urine testing was important not only because it provided 'early and accurate information', but also because 'it keeps the patient interested in his progress, and provides a constant reminder of the need for care.'⁵⁸ Other practitioners echoed similar sentiments, only couched in more Christian, moralistic tones. A. C. Begg, a respected practitioner in Swansea, explained how testing 'impresses on patients the necessity of adhering to the prescribed diet' because 'the evil of any surreptitious addition to the diet is forcibly brought home to them [presumably by colour changes in the urine solution] and they do not offend again.'⁵⁹

Another powerful approach to constituting the self-caring patient was through ongoing advice in the form of a patient handbook. This approach reached its most developed state in the work of Scottish physician R. D. Lawrence (b. 1892, d. 1968). Lawrence undertook his

medical studies in Aberdeen before taking up a position at King's College Hospital in London. He was diagnosed with diabetes in 1920 (after an accident which left him nearly blind in one eye), and incorporated his own experiences with the disease and its treatment into his clinical practice.⁶⁰ Although preaching the gospel of 'normal blood sugars' as a therapeutic aim, Lawrence acknowledged that this would not be practical for all patients, and prescribed more moderate restraints on diet and insulin than many of his peers.⁶¹ He introduced innovations in patient education, and his work underpinned self-care prescriptions for numerous practitioners and patients.⁶²

Uniquely, Lawrence codified his ideas about patient self-management in his widely used and reprinted *The Diabetic Life* (first appearing in 1925, with a final edition in 1965), a manual of care for both practitioners and patients.⁶³ Through its changing list of essentials for 'diabetic education', dietary management and general health, Lawrence articulated a structured vision for patient activity, and provided patients with a legitimisation for their self-care, as well as 'how-to' advice. For instance, according to the sixth edition of the handbook published in 1931, it was essential for a patient to be able to: 'work out and follow the prescribed diet'; 'examine his urine' for sugar and acids, and 'keep a note of the results'; 'if necessary ... give insulin skilfully', observing 'the correct relation between the timing of the injection and meals'; 'never break the proper balance of diet and insulin', and understand the actions to take if insulin had been omitted or if illness strikes; and 'visit his doctor regularly, taking with him notes of his diet, weight, and the results of his tests, and of any questions he wants to ask'. Through these actions patients could achieve metabolic control, but it was also attendant on patients to look after their general health. They were therefore advised to 'have abundance of rest and sleep, and lead a life of moderation in all respects'; 'take as much mild exercise as he can without getting tired'; 'take great care of his teeth' and 'his skin' (the former by regular brushing and 'visits to the dentist', the latter by 'warm baths' with special attention paid to the 'feet'); and 'avoid constipation' and 'the risk of infection with influenza or tuberculosis or even common colds with a care which might savour of undue selfishness and timidity in a normal individual'.⁶⁴ Following this advice would ultimately have had considerable influence on a patient's daily life, often in unexpected ways.

In many respects, this was the distinguishing feature of Lawrence's work. Whereas other practitioners spoke of training, Lawrence articulated a new way of living. If they could 'accept the diabetic creed and follow it faithfully', Lawrence wrote in his first preface (included in every subsequent edition), patients would have 'enough energy for all the ordinary pursuits of life'. In exchange for 'self-control', 'a little intelligence' and 'some determination', this 'diabetic life' would give 'a full and active existence, with no real privations'.⁶⁵ There would be 'inconveniences', and rhythms of regulated diets, injections, self-testing and clinical oversight. But they would become 'second nature' and help to 'develop strength and independence of character'.⁶⁶ By learning about, and adjusting to, their difference, then, patients could almost become better after diagnosis and assume 'normal' life once more.⁶⁷

Although framed as simple self-help tools, providing information to help patients rationally adjust their behaviour, Lawrence's handbooks did not only seek to inform patients: they were instruments for cultivating an active, risk-conscious self. Such efforts were notably coded in traditional values of masculine, Christian self-restraint, forged in the industrial and imperial context of Britain's nineteenth century, and which continued to provide the most prominent – if contested – signs of masculine character in interwar and early post-war Britain.⁶⁸

There were likely epidemiological and cultural explanations for the dominance of gendered advice across the first half of the twentieth century. The invocation of white, male, middle-class values reflected not only the backgrounds of the leading British experts on diabetes, but also the historic and statistical associations between the prevalence of diabetes and upper- and middle-class male life.⁶⁹ The latter connection was particularly disconcerting given British anxieties around national efficiency and imperial rule during the interwar and early post-war period.⁷⁰ Indeed, in light of debates about masculinity emerging after two world wars, the impaired male body represented a cultural and political problem.⁷¹ As well as reflecting his own formative experiences with Presbyterianism, medical school life and the military, Lawrence's strong rhetoric of 'mastery' over self and disease might thus be read as an attempt to ease cultural anxieties – to compensate for a potential threat to masculine governance among the supposedly natural ruling classes.⁷² Equally, the persistence of such rhetoric into the early post-war period may be explained by the way in which the British welfare

state had been predicated on a heteronormative male breadwinner model, and it is perhaps unsurprising that justifications for, and culture of, self-care thus remained gendered.⁷³

In practice, where clinical staff offered training in self-care, discrimination did not take place along gender lines, with education delivered to all adult patients and the parents of children with diabetes.⁷⁴ Rather, the stress that some early-century clinicians placed on patient intelligence was often an indicator of class-based presumptions about capability, with these practitioners believing a patient's socio-economic status, education or ethnicity provided barriers to effective self-governance.⁷⁵ Describing an encounter with 'a young Irish soldier, who had escaped school in the past', one London physician wrote in 1917 of how he 'attempted to explain to [the patient] in simple language that he was suffering from a disease which would kill him very soon if he did not consent to undergo certain treatment'. 'After listening patiently', the patient allegedly 'said "Ma fayther never did belave in doctors"'. 'Patients of no education who have not been taught control are unsuitable' for strict dietary programmes, the author concluded, 'prov[ing] a trial to their physician' with their non-compliance after discharge.⁷⁶

Such open disdain and 'othering' became rarer in British journals and textbooks over time, especially with regard to class.⁷⁷ In terms of race and ethnicity, despite the imperial whiteness coded in appeals to self-control, it tended to be in colonial contexts – where issues of self-governance had clear political overtones – that discussions of treatment and self-care overtly intersected with racialised discourses of masculinity.⁷⁸ Nonetheless, though rarely articulated, implicit cultural norms manifested in other ways. For instance, mid-century texts rarely considered the differing dietary requirements of Britain's increasingly diverse population. Such an absence was indicative of the way that white middle-class standards provided the basis of medical and dietary advice for self-care, despite the rising visibility of demographic change. Only local initiative seemingly provided a corrective until the politicisation of inequalities much later in the century.⁷⁹

Self-care and emotional management

Historically, a key element of discourses about disciplined masculinity had been the capacity to control emotion, and to rise above irrational

responses through self-improvement. In this sense, an emotional economy had been central to concepts of masculinity even when supposedly excluded. Emotional and psychological management had also played a significant part in professional approaches to diabetes care during the early and mid-twentieth century, though the rationale for this management subtly shifted over time.⁸⁰ Texts in the 1900s and 1910s tended to couch discussions of cause and treatment of diabetes in traditions that linked overstimulation to bodily disturbance via the nervous system.⁸¹ For instance, discussing the aetiology of diabetes in 1913, one textbook suggested that diabetes had 'been observed to follow ... traumatic and other lesions of the nervous centre' and had 'apparently been traceable occasionally to emotional shock, anxiety, and mental strain.'⁸² Minimising such nervous disturbances became an important element of treatment. On the one hand, doctors recommended moderation of lifestyle, remarking how 'a moderate amount of work without any anxieties, excitements or worries suits best.'⁸³ On the other hand, knowledge of the possible effects of strain on diabetes also fed into clinical decision-making. As one London practitioner pointed out, doctors needed to know when to adjust dietary therapy and when to avoid intervention. 'The reappearance of sugar after some time without any alteration of the diet', he suggested, 'does not necessarily mean that a fresh period of alimentary rest need be prescribed, or even a modification in the diet is essential.' Rather, as 'exposure to cold, anxiety about catching a train, and many other minor things can lead to a return of sugar', other potential causes of disturbance 'should be inquired about before any alteration in the diet is ordered.'⁸⁴

These frameworks of causation and management retained a long influence in British discussions of diabetes.⁸⁵ However, by the 1930s, clinical and lay discussions of emotional and psychological states in diabetes were increasingly devoid of models that physically connected mental or emotional duress and physiological balance. Instead, they were concerned with the importance of emotional and psychological management for effective self-care, and how the difficulties and temporal implications of a diagnosis provided specific challenges. It was feared that a changed sense of self following diagnosis, or the introspection and hard work of lifelong self-surveillance, would produce fatalism, while patients who appeared too optimistic might be complacent about their situation with devastating results not manifesting until years later.

As one article in the *Diabetic Journal* put it: ‘the diabetic patient has to steer a course between that of being over-confident and that of undue anxiety’.⁸⁶ This meant that those charged with managing patients also had a difficult task: practitioners and agencies promoting patient interests sought to carefully manage patient outlooks, finding a useful balance between extremes, and harnessing and channelling negative and positive outlooks into health-promoting behaviours.

An important starting place for this work was once again the acts and instruments of self-testing, which were designed to elicit affective responses and to manage the mental lives of patients. A clinician in Hull, for example, noted that even negative responses to the longitudinal inscriptions of a patient-made glycosuria chart could prove useful in generating more positive reactions. He suggested that after ‘mistakes’ a patient might ‘take pride in producing a chart without ... blemishes, and hence is more careful in his diet’. The graphic nature of the resulting data even enabled patients to cope with physically punishing experiences, for example providing ‘reward [to a patient] visibly for his starvation days if they are imposed’.⁸⁷

Affective management also took place during clinical encounters. In part due to the way insulin treatment became folded into emergent networks of British scientific medicine, clinicians and researchers in general medical hospitals created specialist outpatient clinics for the long-term management of patients with diabetes during the 1920s and 1930s.⁸⁸ Clinics proliferated in subsequent decades, especially after the creation of the NHS, and some practitioners sought to explicitly use their clinics to reinforce medical attempts at cultivating self-governing patients.⁸⁹ For instance, an article published in 1927 about a clinic in Salford reflected on the techniques applied in its communal spaces. Firstly, the author noted, ‘considerable importance was attached to th[e] matter of “atmosphere”’. An ‘informal’ environment was fostered to carefully manage patients’ emotional and psychological responses and harness them for optimal therapeutic results. ‘It [the atmosphere] kept the patients cheerful and good-tempered’, the article noted, ‘enabled one to obtain their confidence, and kept them interested in their progress with the least possible tendency to depression.’ Mirroring the discussion about urine testing, the doctor feared that introspection over an incurable condition might generate unhelpful psychological states. The clinic was designed, therefore, to ensure that patients were neither

overly pessimistic nor dangerously complacent, and so to optimise effective disease management both within and outside the institution.⁹⁰

Once established, this atmosphere provided the space for more classic disciplinary techniques.⁹¹ The article detailed how 'patients were encouraged to compare notes of their progress, blood sugar content, and so forth'. Through such informal activity, strategies of examination and comparison could be deployed to encourage appropriate behaviours. Similarly, public punishment was dispensed to those 'convicted of dietary indiscretions', albeit delivered in a way that did not infringe on formal access to care. In line with the clinic's emphasis on psychological management through 'joviality', perpetrators were 'good-humouredly but roundly rated in front of their fellow patients', with the author noting that 'whilst these scoldings were always taken in good part, they seemed to have an excellent effect'.⁹²

The semi-public management of early clinics seemingly faded over time, and may well not have been replicated elsewhere. Similarly, despite some clear reflection on psychological and emotional management in medical texts, systematic and extended reflection was often implicit rather than explicit. During the 1930s, however, a new source for constituting patient identity emerged and assumed the mantle of managing psychological outlook and emotional life: the Diabetic Association (later the British Diabetic Association, or BDA). Consciously formed in the 'mutual aid' tradition, the Association was a mixed professional-lay body created by R. D. Lawrence, his colleagues and patients during 1933–34.⁹³ Although predominantly run by medical and nursing professionals, the Association was funded by patients and their families, and lay people served on organisational committees.⁹⁴ The Association was not unique. Along with their families, medical practitioners and researchers, patients with other long-term conditions had created similar organisations throughout the interwar period.⁹⁵ During these years, clinical and public interest in degenerative and chronic conditions had begun to build, and charitable association provided a means to support research and treatment.⁹⁶ The BDA, however, was perhaps the most expansive in terms of its focus on the welfare of patients and its efforts to build an identity around a given disease.⁹⁷ Demonstrating the complex networks of medical institutions, state provision and professional surveillance in which self-care was embedded, the Association supplemented its advice literature and patient education efforts with

lobbying the government and health services on a wide range of issues affecting people with diabetes. Access to clinics, provision of medications and staffing, the education and care of children with diabetes, rationing allowances and employment discrimination against people with diabetes were of considerable interest to the BDA during the first three decades of its existence, the latter of particular concern due to the connection between work, identity and pensions.⁹⁸

The *Diabetic Journal* was the main public outlet for the Association's views, produced for subscribers. It was through this publication – renamed *Balance* in 1961 – that the Association sought to construct a new 'diabetic' identity for people with the condition, and to constitute selves oriented to maintaining physiological balance. Throughout the decades under discussion, the *Journal* used numerous genres and techniques to achieve this aim. Alongside appeals for, and news on, the Association itself, the periodical carried articles on the latest research into diabetes and therapeutic innovations. It revised food tables, produced 'diabetic recipes', and published regular correspondence sections with question and answer pages. It also carried frequent 'personal' stories about patient experiences, covering everything from receiving diagnosis and struggles with treatment, to experiences of holidays and other activities supposedly deemed unsuitable for patients with complex care needs. In later years, it also celebrated famous achievements of people with diabetes, partly extending the Association's historic – and very public – connections with figures like H. G. Wells.

Although rarely drawing on systematic psychological models, editorials and personal reflections were particularly important for the Association's efforts to manage psychological life and cultivate adherence to professional advice about physiological balance. As with Lawrence's ode to willpower, the *Journal's* reportage and personal stories could be aspirational in tone. They suggested that patients should not be limited in their goals or activity, stressing that – with proper attention to self-care – patients could live a full life. Notably, the tone of articles could vary. Some, for instance, were keen to emphasise that self-care need not be a problematic, or even noticeable, part of a patient's existence. This was the case with certain reports on holidays, the frequency of which probably reflected the middle-class membership of the Association. One article, describing an author's lengthy cycling holiday with his wife, ran for fourteen pages but only detailed self-care practices

during the final four paragraphs.⁹⁹ Despite self-management being a notable daily feature, the work of self-care was largely hidden from the reader, whose own temporal investment in the piece perhaps provided an opportunity for (vicarious) escape. The article offered rich descriptions of holiday pleasures – hotels, social interactions, physical exertion and 'the open rugged grandeur of the [Highlands] mountains' – a sense of what could be for patients, without puncturing the dream with the labour of self-care. Indeed, even when self-management appeared, the author acknowledged that he was 'unable to carry out my proper tests on tour', instead relying 'entirely on my very developed sense of balance'. This was not recommended as 'a good method in general practice', but perhaps such a relief from duty added to the allure.¹⁰⁰

By contrast, other material stressed the importance of firm regulation. For instance, the author of one reflection on diagnosis and years of treatment attributed their persistent good health to 'two things': 'firstly to refusing any article of foodstuffs not included in my very liberal diet chart, and, secondly, to taking plenty of exercise all year round'. Even here, however, self-care was downplayed as fitting within regular life. The author recalled how daily injections began as 'something I disliked very much', but soon became a matter of 'mere routine', with morning insulin fitting 'unconsciously into the usual round of shaving, bathing and dressing'. 'Normal life' remained undisturbed, with the author noting that they were able to work 'harder than ever' (being 'fully competent to meet the extra strain'), and recalling that they were able to successfully negotiate '16 days' holiday on the continent ... despite considerable difficulties in the way of obtaining correct food'.¹⁰¹ These personal stories found support in later editorials that emphasised how 'the diabetic routine need not intrude unduly on your activities', and could leave 'plenty of opportunity for the major and minor pleasures of life' if not followed with 'fanaticism'.¹⁰² Similarly, even when acknowledging that there is 'not one of us who does not need to go on striving towards the perfect balance in diabetes, mentally, spiritually, and physically', such claims were motivational, promising that a renewed engagement with self-care routines could be 'rewarded by a happier and better state of health'.¹⁰³ Through such articles, the journal looked to ensure emotional balance by countering negative introspection and harnessing optimism for long-term motivation.

Modelling aspirational, 'good' behaviour was not the sole means that the Association deployed to manage public perceptions and facilitate self-care. Their advice literature could also mobilise the figure of a bad diabetic 'other' to this end, often through short references. For example, the author of one article, titled 'A young diabetic in business', concluded by declaring that 'whatever else I do, I shan't let the diabetic side down. They'll never find me in a coma or silly from an overdose of insulin and come to the conclusion that diabetics are unreliable employees.' Just as the invocation of 'the diabetic side' was designed to interpellate its readers with a positive 'diabetic' identity, the 'bad', imbalanced diabetic served as a warning to readers. The possible damage done to the collective by poor individual behaviour, the piece implied, should be enough to encourage adherence to medical norms.¹⁰⁴

Extended personal reflections were also used to contextualise experiences. Outlining her own response to disease and treatment over nine years, one author wrote in 1938 about her life since diagnosis as a period of 'unhappy ups and downs ... and ... final satisfactory adjustment'. The author noted how her first response had been to 'withdraw from my usual activities, to keep myself safely alone where no contact emphasised my difference'.¹⁰⁵ Eventually, 'pride and necessity ended this withdrawal'. The author gained 'familiarity with the rules' that offered 'courage to disregard some of them', and 'associates' became used to her routine. From the outside – and judging from the norms of self-care advice – the author had 'apparently fitted diabetes into my life'. However, 'self-consciousness didn't end when the routine was set', and 'superficial[ly]' adjustment couldn't stop the fact that 'subconsciously there remained a barrier'. The author tried to make her life like those of 'other people', but though she 'ate as I pleased and seldom bothered with the tests', she 'worried all the time': 'for all the fun I had', the author confessed, 'I might as well have gone to prison'. A worsening of her condition followed, as did a month-long hospital admission and stricter regime, and after another 'relapse' the author ended up back in hospital due to 'frequent insulin reactions'. This stay, however, helped her to 'thin[k] of myself as a diabetic'.¹⁰⁶ Whereas she had previously 'schooled myself to ignore what [the words] meant, because I disliked them', now she 'gradually ... admitted the handicap I had'.¹⁰⁷ She no longer 'required energy to pull against' her condition, and saw that 'a diabetic could live a well-rounded life, accepting the meaning

of being a diabetic, realising his limitations and adjusting life accordingly'. 'Without knowing it ... I was free ... Suddenly ... the future I wanted grew pleasantly possible, because I felt able to attempt it.' By psychologically accepting her condition and its limitations, she could let go of fear and resentment: 'when examined, it was no problem.'¹⁰⁸

Articles like this had a dual importance for the *Journal*. In some respects, they served as warnings. The author acknowledged, for instance, that her experiences gave her 'the knowledge' and 'the desire to help all other diabetics to avoid bumps in the diabetic road of life.'¹⁰⁹

Indeed, by contrasting her superficial coping with inner turmoil, the author appeared to be encouraging patients to be honest with themselves, and to be constantly vigilant for any affective problems that might eventually lead to dangerous physiological imbalance. On the other hand, such articles could also be seen to provide insight for patients into what their psychological and emotional trajectory could be. The author characterised herself as a normal patient. She suggested that she encountered obstacles, despite the fact that 'I am supposed to be an intelligent, reasonable person, capable of adjusting myself to life'. Similarly, she noted how she had 'looked around at other members of the diabetic clan and talked to them', finding that 'too many of them have in one way or another had the complex, dishonest attitude I had'.¹¹⁰ Such work thus normalised certain responses and states, and once again held out the hope to readers that their struggles can improve with reflection. In either scenario, articles such as this, published on the hinterland of medical discourse, made plain that emotional stability and psychological management were important to achieving effective self-care, and vice versa.

Conclusion

Armed with a talk titled 'how to be happy though diabetic', the Honorary Secretary of the British Diabetic Association, Mr J. P. McNulty, gave the principal address to the BDA's 1954 general meeting.¹¹¹ From the off, McNulty rejected the idea that 'happiness and diabetes are somehow inconsistent'.¹¹² Rather, he noted, 'happiness comes and goes', and he used his lecture to muse on the barriers to happiness that individuals faced, and the ways that these barriers might be reduced.¹¹³ Though McNulty had no formal medical or psychiatric training – he

spent most of his working life in procurement and advertising – his address mobilised psychological terminology, such as references to ‘the struggle between ... opposing desires’ and the danger of ‘a fixed immaturity’.¹¹⁴ Such allusions did not draw on a particular system of thought, so much as reflect a growing psychologisation of everyday life in post-war Britain, which McNulty freely mixed with a Christian morality and Bible citation.¹¹⁵

McNulty’s talk, though, was indicative of the shifting ways in which emotional and psychological balance had come to inform discussion of diabetes and self-care by the 1950s. It proposed that happiness came to those who adjusted themselves to the world and their own capacities. ‘Might it not ... be better’, McNulty suggested, ‘to acknowledge one’s limitations and accept them with good humour, making the best use we can of those faculties of hand and brain with which we have been endowed, claiming nothing beyond our merits, rejoicing in good fortune and foregoing pride?’ By eschewing ‘vanities’ and ‘fears’, individuals could reduce ‘the barriers to happiness’.¹¹⁶ Such a call might have been informed by middle-class anxieties around a decline of deference and rising working-class affluence, but the message would certainly have had special significance for people with diabetes.¹¹⁷ Following the *Diabetic Journal*’s example, McNulty implied that patients who accepted their disease required management would be less liable to dangerous complacency. Indeed, McNulty spent a considerable portion of his talk reminding his audience about self-care regimes and the importance of readjusting ‘our nutritional balance’ to bodily capabilities.¹¹⁸

In part, masculine self-control held the key to both physiological and emotional balance. ‘Whether on insulin or not’, McNulty claimed, ‘the diabetic who wishes to remain healthy must maintain a constant self-discipline.’ This self-discipline, though, was not a ‘source of unhappiness’ for ‘it can in fact develop a self-reassurance which resists fear’. So long as ‘it does not generate pride’, McNulty suggested, ‘self-discipline strengthens the moral as well as the physical fibre of man’.¹¹⁹ Despite his insistence on control, McNulty admitted that there were times when ‘despite our care, our diabetes gets out of control’. Whether as the result of illness, or ‘emotional disturbances’ such as ‘a domestic loss, a financial setback, an affront, real or imagined, to our dignity’, hyperglycaemia could return. Perhaps worse, integrating discourses on the somatic effects of emotional trauma with newer concerns on mental health,

McNulty suggested that 'unless we check it, depression takes hold of us and joins the prime saboteurs of our health and our peace of mind'. It was only, McNulty concluded, by recognising that misfortune ebbs and flows, and that death is the 'natural destiny of all living things', that patients could either regain control or find peace.¹²⁰

Given McNulty's role in both the BDA and the *Diabetic Journal*, it was unsurprising that his address was reprinted in the *Journal* for members not in the room. Indeed, the talk chimed with McNulty's vision for the publication, which had for years been dedicated to addressing the 'strong momentum of fear' around diabetes inherited 'from the pre-insulin days'. Although also connecting members, giving advice and 'spread[ing] enlightenment', the creators of the *Journal* – like McNulty – saw it as having 'an important role to play' in 'raising diabetic morale', something which was crucial given the 'natural tendency for the "new" diabetic ... to feel unduly depressed' by their diagnosis.¹²¹

One notable part of McNulty's speech was his quotation of Donne's 'no man is an islande [sic] unto himself'.¹²² McNulty used it to encourage patients not to withdraw from society, but its invocation of the relationality of care also usefully highlighted the dynamics of self-care within broader institutional and social arrangements. Discussions of self-care often marginalised an integral part of this relationality, that important elements of self-management – for instance, eating at regular periods or preventing hypoglycaemia – often relied on unacknowledged labour of friends and family. This chapter, however, has sought to show other sides to self-care's relationality. Firstly, it has suggested that healthcare professionals, innovative practices and instruments of care, and new patient organisations were central to the constitution of the self oriented to physiological balance. Patients and their families or friends may have performed the labour, but their new identities and activities were constructed from new social relations and interactions with 'external' sources.¹²³ Secondly, it has highlighted how these same agencies sought to regulate patients' affective lives. Though such regulation initially emerged from beliefs that emotional shocks could physically manifest in physiological disturbance, clinicians and institutions of the interwar and post-war period increasingly justified attempts to manage psychological life with claims that depressed, complacent or emotionally unstable patients could fail to care for themselves effectively.

Finally, this chapter has indicated how self-care was itself embedded within broader relations of care. As references to medical professionals, special outpatient clinics and a prominent patient association have made clear, responsibility for balance was by no means individualised during this period. Not only did networks of patients and professionals mobilise in new forms of social and political activism, but by 1948 the British state had also assumed a central role in diabetes care by securing access to services, technologies and expertise.¹²⁴ There was, moreover, a further balance of interests and reciprocity in these arrangements. Though initially only supporting the care of a minority of the population, the British state increasingly required balanced citizens to engage in productive activity, pay taxes, avoid unnecessary claims and engage with democratic decision-making without turning to extreme alternatives.¹²⁵ Even as an individualising ‘neoliberal’ political philosophy gained greater influence on British policy-making and governance after the mid-1970s, neither the state nor the BDA withdrew support from patients who failed to comply with their interests.¹²⁶

Concepts of balance – political, physiological, psychological and emotional – were thus central to ideas of the ‘good diabetic’ in the first half of the twentieth century. Although discursively this ideal patient was a self-governing individual, in control of their emotions and bodies, self-care only ever formed one part of treatment for diabetes. Equally, in practice, efforts to constitute the self-balancing subject came from numerous directions, and depended on a range of practices, instruments and social relations. Patients rarely reacted to state, professional or collective efforts to cultivate self-governance in the ways intended.¹²⁷ Nonetheless, such efforts were indicative of the complex relations, motivations and politics involved in balancing the self in twentieth-century Britain.

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Notes

- 1 Anon., 'A diabetic's great feat', *Diabetic Journal*, 6:7 (1951), 89.
- 2 D. Armstrong, 'Actors, patients and agency: a recent history', *Sociology of Health and Illness*, 36:2 (2014), 163–74; Ian Hacking, 'Making up people', in H. C. Heller, M. Sosna and D. E. Wellbery (eds), *Reconstructing Individualism: Autonomy, Individuality and the Self in Western Thought* (Stanford: Stanford University Press, 1986), pp. 222–36.
- 3 On the development and contestation of such ideas beyond diabetes, see M. Jackson, *The Age of Stress: Science and the Search for Stability* (Oxford: Oxford University Press, 2013), pp. 56–62.
- 4 Anon., 'A diabetic's great feat', p. 89.
- 5 M. Thomson, *Psychological Subjects: Identity, Culture and Health in Twentieth-Century Britain* (Oxford: Oxford University Press, 2006); M. Shapira, *The War Inside: Psychoanalysis, Total War, and the Making of the Democratic Self in Postwar Britain* (Cambridge: Cambridge University Press, 2013); C. Langhamer, 'An archive of feeling? Mass Observation and the mid-century moment', *Insights*, 9:0 (2016), 1–12; T. Chettiar, "'More than a contract?": The emergence of a state-supported marriage welfare service and the politics of emotional life in post-1945 Britain', *Journal of British Studies*, 55:3 (2016), 566–91.
- 6 Chettiar refers to 'depth psychology' as all forms of psychological knowledge predicated on the existence of an unconscious: Chettiar, "'More than a contract?"; p. 567, n.6. For the history and variety of such models: Thomson, *Psychological Subjects*; R. Hayward, *The Transformation of the Psyche in British Primary Care, 1870–1970* (London: Bloomsbury Academic, 2014).
- 7 On 'will', information and psychological persuasion in public health campaigns, see Chapters 3 and 4. On the scientific status of emotions in response to perceived excess emotionality of Nazism, see M. Jackson, 'Medical and scientific understandings', in J. Davidson and J. Damousi (eds), *A Cultural History of the Emotions in the Modern and Post-Modern Age* (London: Bloomsbury Academic, 2019), pp. 19–36.
- 8 N. Rose, *Inventing Our Selves: Psychology, Power, and Personhood* (Cambridge: Cambridge University Press, 1996).
- 9 Shapira, *The War Inside*. On the relationship of balance to production, see Chapter 7.
- 10 On the politics of self-help, see Chapters 5, 6 and 9.
- 11 A. Peterson and D. Lupton, *The New Public Health: Health and Self in the Age of Risk* (London: Sage, 1997); D. Armstrong, *A New History of Identity: A Sociology of Medical Knowledge* (Basingstoke: Palgrave, 2002); and Chapter 10.

- 12 On the development and limits of physiological perspectives: Jackson, *The Age of Stress*, pp. 62–75; C. Lawrence, ‘Moderns and ancients: the “new cardiology” in Britain, 1880–1930’, *Medical History*, 29:5 (1985), 1–33; C. Lawrence, *Rockefeller Money, The Laboratory and Medicine in Edinburgh, 1919–1930: New Science in an Old Country* (New York: University of Rochester Press, 2005).
- 13 Anon., ‘Treatment of diabetes’, in I. Burney Yeo, Raymond Crawford and E. Farquhar Buzzard (eds), *A Manual of Medical Treatment and Clinical Therapeutics*, vol. 2, 5th edition (London: Cassell and Co., 1913), pp.519–48, at p.519. For ancient Greek conceptions of balance: L. I. Conrad, M. Neve, V. Nutton, R. Porter and A. Wear, *The Western Medical Tradition, 800 BC to AD 1800* (Cambridge: Cambridge University Press, 2003), pp. 23–31.
- 14 Anon., ‘Modern views on diabetes’, *Lancet*, 192:4950 (1918), 49.
- 15 Anon., ‘Treatment of diabetes’, pp. 525–6.
- 16 P. J. Cammidge, ‘The dietetic treatment of diabetes’, *Lancet*, 179:4621 (1912), 788–90, at p. 788.
- 17 C. Feudtner, ‘Pathway to health: juvenile diabetes and the origins of managerial medicine’, in A. M. Stern and H. Markel (eds), *Formative Years: Children’s Health in the United States, 1880–2000* (Ann Arbor, MI: University of Michigan Press, 2002), pp. 208–32.
- 18 Anon., ‘“Cures” for diabetes’, *Lancet*, 186:4813 (1915), 1207.
- 19 Anon., ‘Modern views on diabetes’, p. 49; O. Leyton, ‘The modern treatment of diabetes mellitus’, *British Medical Journal [BMJ]*, 1:2930 (1917), 252–4.
- 20 On the relative importance of clinical, subjective and biochemical indicators: Anon., ‘Treatment of diabetes’, pp. 519–20, 528–38.
- 21 M. Bliss, *The Discovery of Insulin*, 25th anniversary edition (Chicago: University of Chicago, 2007).
- 22 R. D. Lawrence, *The Diabetic Life: Its Control by Diet and Insulin: A Concise Practical Manual for Practitioners and Patients*, 1st edition (London: J. A. Churchill, 1925), p. 31.
- 23 *Ibid.*, p. 4, p. 6 respectively.
- 24 *Ibid.*, p. 31.
- 25 H. P. Himsworth, ‘The syndrome of diabetes mellitus and its causes’, *Lancet*, 253:6551 (1949), 465–73.
- 26 H. P. Himsworth, ‘The mechanism of diabetes mellitus’, *Lancet*, 234:6047 (1939), 171–6.
- 27 Anon., ‘Diabetes and sanatogen’, *Diabetic Journal*, 1:11 (1937), 5; Anon., ‘Diabetes mellitus and hormone imbalance’, *BMJ*, 2:5265 (1961), 1484. On neo-humoralism, see Jackson, *The Age of Stress*, pp. 63–4.

- 28 Lawrence, *Rockefeller Money*, pp. 276–85. Also: Feudtner, 'Pathway to health', pp. 217–23.
- 29 P. J. Cammidge, *The Insulin Treatment of Diabetes Mellitus* (Edinburgh: E&S Livingstone, 1924), pp. 152–3.
- 30 E. L. Furdell, *Fatal Thirst: Diabetes in Britain until Insulin* (Leiden: Brill, 2009), p. 154. In general, glycosuria only occurred once blood glucose levels were elevated above 'normal' levels, and ketones only when metabolism was seriously impaired beyond that. Practitioners considered 'normal' levels of glycaemia to vary during the day, between 80mg/100ml and 120mg/100ml 'fasting', and between 130mg/100ml and 170mg/100ml up to two hours post-eating. The level at which sugar passed from the blood to the urine was termed the 'leak point'. This point could vary in different individuals, though contemporary knowledge positioned leakage to occur when blood glucose levels reached 180mg/100ml: Lawrence, *The Diabetic Life*, 1st edition, pp. 19–22. The gap between these two points concerned some clinicians, as removing glucose from the urine alone might not correct metabolic problems. Blood sugar could remain above 120mg/100ml for much of the day without showing in the urine, and undermine attempts to restore pancreatic activity through physiological rest.
- 31 M. D. Moore, 'Food as medicine: diet, diabetes management, and the patient in twentieth century Britain', *Journal of the History of Medicine and Allied Sciences*, 73:2 (2018), 150–67, at pp. 155–9. On glycosuria monitoring: A. C. Begg, *Insulin in General Practice: A Concise Clinical Guide for Practitioners* (London: William Heinemann, 1924), pp. 82–3; H. P. Himsworth, 'Management of diabetes, part II', *BMJ*, 2:3942 (1936), 188–90. Some clinicians maintained the importance of blood sugar estimations during early treatment, and periodically thereafter, as a means to assess metabolic status, check for misleading 'leak points', and to make changes of regimen safer: R. D. Lawrence, *The Diabetic Life: Its Control by Diet and Insulin: A Concise Practical Manual for Practitioners and Patients*, 6th edition (London: J. A. Churchill, 1931), pp. 49–60, 164.
- 32 C. Sinding, 'Flexible norms? From patients' values to physicians' standards', in W. Ernst (ed.), *Histories of the Normal and the Abnormal: Social and Cultural Histories of Norms and Normativity* (London: Routledge, 2006), pp. 225–44, at pp. 232–5; R. B. Tattersall, *Diabetes: The Biography* (Oxford: Oxford University Press, 2009), pp. 85–9.
- 33 J. C. Prestwich, 'The diet in diabetes', *BMJ*, 1:4299 (1943), 676.
- 34 R. H. Micks, 'The diet in diabetes', *BMJ*, 1:4297 (1943), 598–600; G. Luntz, 'The diet in diabetes', *BMJ*, 2:4304 (1943), 21.

- 35 D. M. Dunlop, 'Are diabetic degenerative complications preventable?', *BMJ*, 2:4884 (1954), 383–5.
- 36 Anon., "Free diet" in diabetes', *BMJ*, 1:4715 (1951), 1133–4.
- 37 R. D. Lawrence, *The Diabetic Life: Its Control by Diet and Insulin and Oral Treatment by Sulphonyl-Ureas: A Concise Practical Manual*, 16th edition (London: J. A. Churchill, 1960), p. 93.
- 38 Moore, 'Food as medicine'.
- 39 Sinding, 'Flexible norms?', pp. 235–6.
- 40 G. F. Walker, 'Reflections on diabetes mellitus: answers to a questionnaire', *Lancet*, 262:6800 (1953), 1329–32. Most respondents believed hyperglycaemia was connected to complications, yet half aimed for normoglycaemia, and half for mild hyperglycaemia.
- 41 Tattersall, *Diabetes*, p. 11. Self-care was probably performed by sufferers of similar symptomatic conditions not given the label 'diabetes' (most notably in non-Greek traditions). Discussion here is restricted to subjects classified as having 'diabetes' (however defined) to avoid retrospective and cross-cultural application of contemporary biomedical knowledge.
- 42 Furdell, *Fatal Thirst*, pp. 1–37.
- 43 It appears that some patients were even admitted for months, especially with co-morbidities – see Lawrence, *Rockefeller Money*, pp. 293–6, 300–2. Oral testimonies indicate two-week stays for children on wards in the 1930s: interview with M. Elliott conducted by the University of Oxford, 7 December 2004, available at www.diabetes-stories.com/interview.asp?UID=33, accessed July 2018. On admission, see Lawrence, *The Diabetic Life*, 6th edition, p. 38.
- 44 Begg, *Insulin in General Practice*, pp. 86–7. State-centric approaches to diabetes attracted some praise in Britain during the 1930s: E. A. Steele, 'The treatment of diabetics in the USSR', *Diabetic Journal*, 1:11 (1937), 16–18.
- 45 C. Webster, *The Health Services Since the War, Volume I: Problems of Health Care, The National Health Service Before 1957* (London: HMSO, 1988).
- 46 M. D. Moore, *Managing Diabetes, Managing Medicine: Chronic Disease and Clinical Bureaucracy in Post-War Britain* (Manchester: Manchester University Press, 2019), pp. 50–1.
- 47 *Ibid.*; J. B. Walker, 'Field work of a diabetic clinic', *Lancet*, 262:6783 (1953), 445–7.
- 48 T. H. Marshall, *Citizenship and Social Class and Other Essays* (Cambridge: Cambridge University Press, 1950).
- 49 Bevan quoted in "Houses in great numbers", *The Times*, 4 January 1946, p. 4.

- 50 G. Millward, *Vaccinating Britain: Mass Vaccination and the Public since the Second World War* (Manchester: Manchester University Press, 2019); V. Berridge, 'Medicine and the public: the 1962 report of the Royal College of Physicians and the new public health', *Bulletin of the History of Medicine*, 81:1 (2007), 286–311. See also Chapters 3 and 4.
- 51 Read in this light, appeals in one text for patients to take good care of themselves, adding 'no invalidism, please', take on new meaning: Lawrence, *The Diabetic Life*, 16th edition, p. 192.
- 52 D. M. Lyon, 'Prognosis in diabetes mellitus', *Lancet*, 199:5152 (1922), 1043–5, at p. 1045.
- 53 *Ibid.*, p. 1045.
- 54 C. J. C. Earl, 'Treatment of diabetics as hospital out-patients', *BMJ*, 1:3461 (1927), 831–3, at p. 832; Begg, *Insulin in General Practice*, p. 86.
- 55 Lawrence, *The Diabetic Life*, 1st edition. On the labour of daily self-care: C. Feudtner, *Bittersweet: Diabetes, Insulin, and the Transformation of Illness* (Carolina: Carolina University Press, 2003), pp. 89–120.
- 56 Lyon, 'Prognosis in diabetes mellitus', p. 1045.
- 57 D. Willems, 'Managing one's body using self-management techniques: practicing autonomy', *Theoretical Medicine and Bioethics*, 21:1 (2000), 23–38.
- 58 Earl, 'Treatment of diabetics as hospital out-patients', p. 832.
- 59 Begg, *Insulin in General Practice*, p. 86.
- 60 J. G. L. Jackson, 'R. D. Lawrence and the formation of the Diabetic Association', *Diabetic Medicine*, 13:1 (1996), 9–21.
- 61 Lawrence, *The Diabetic Life*, 1st edition, pp. 59–60; Furdell, *Fatal Thirst*, p. 154.
- 62 Moore, 'Food as medicine', pp. 157–60.
- 63 *Ibid.*, pp. 9–10.
- 64 Lawrence, *The Diabetic Life*, 6th edition, pp. 162–4.
- 65 *Ibid.*, p. vii.
- 66 *Ibid.*, p. 139.
- 67 Moore, 'Food as medicine', p. 9.
- 68 D. E. Hall, *Muscular Christianity: Embodying the Victorian Age* (Cambridge: Cambridge University Press, 1994); M. Sinha, *Colonial Masculinity: The 'Manly Englishman' and the 'Effeminate Bengali' in the Late Nineteenth Century* (Manchester: Manchester University Press, 1995); J. Tosh, *Manliness and Masculinities in Nineteenth-Century Britain: Essays on Gender, Family and Empire* (Harlow: Pearson Longman, 2005). On the contested after-lives of such constructions: M. Francis, 'The domestication of the male? Recent research on nineteenth and twentieth-century British masculinity', *The Historical Journal*, 45:3 (2002), 637–52;

- A. McLaren, *Playboys and Mayfair Men: Crime, Class, Masculinity, and Fascism in 1930s London* (Baltimore: Johns Hopkins University Press, 2017). On masculinity and balance, see Chapter 5.
- 69 S. O'Donnell, 'Changing social and scientific discourses on type 2 diabetes between 1800 and 1950: a socio-historical analysis', *Sociology of Health and Illness*, 37:7 (2015), 1102–21; I. Sutherland, 'Variations in occupational mortality between and within the social classes', *British Journal of Social Medicine*, 1:2 (1947), 126–34. In 1931, Lawrence suggested that diabetes occurred 'in both sexes at any age, but is more common in middle and late life, and probably in men than in women': Lawrence, *The Diabetic Life*, 6th edition, p. 9.
- 70 I. Zweiniger-Bargielowska, 'Building a British superman: physical culture in interwar-Britain', *Journal of Contemporary History*, 41:4 (2006), 595–610; J. Tomlinson, *The Politics of Decline: Understanding Post-War Britain* (Harlow: Pearson, 2001); B. Harrison, *Seeking a Role: The United Kingdom, 1951–1970* (Oxford: Oxford University Press, 2009).
- 71 J. Bourke, 'Love and limbleness: male heterosexuality, disability, and the Great War', *Journal of War and Culture Studies*, 9:1 (2016), 3–19. The idea of 'mastering' one's body was also prominent in efforts to address a range of conditions during the mid-century, not least stress: Jackson, *The Age of Stress*, pp. 177–80.
- 72 J. Lawrence, *Diabetes, Insulin and the Life of RD Lawrence* (London: Royal Society of Medicine Press, 2012).
- 73 On the gendered welfare state: J. Clarke and J. Newman, *The Managerial State: Power, Politics and Ideology in the Remaking of Social Welfare* (London: Sage, 1997), pp. 2–4.
- 74 Interview with M. Winn conducted by the University of Oxford, 2 December 2004, available at www.diabetes-stories.com/transcript.asp?UID=31, accessed July 2018. Training could be patchy, however, and in some instances non-existent: interview with Grace conducted by the University of Oxford, 3 August 2004, available at www.diabetes-stories.com/interview.asp?UID=13, accessed July 2018; interview with Roy conducted by the University of Oxford, 29 October 2007, available at www.diabetes-stories.com/interview.asp?UID=85, accessed July 2018.
- 75 On discourses of intelligence and class: O'Donnell, 'Changing social and scientific discourses', pp. 1102–21. Public debate about 'ignorant' patients also hung over questions of insulin use: Furdell, *Fatal Thirst*, p. 155.
- 76 Leyton, 'The modern treatment of diabetes mellitus', p. 253.
- 77 On the importance of 'others' to self-identity: E. Said, *Orientalism* (London: Penguin, 2003).

- 78 D. Arnold, 'Diabetes in the tropics: race, place, and class in India, 1880–1965', *Social History of Medicine*, 22:2 (2009), 245–61, at p. 258.
- 79 Wellcome Library Archives, P9890, The British Diabetic Association, 'Healthy Asian cooking: a guide for people from the Indian sub-continent', 1996; R. Bivins, *Contagious Communities: Medicine, Migration, and the NHS in Post-war Britain* (Oxford: Oxford University Press, 2015).
- 80 See also Jackson, 'Medical and scientific understandings'.
- 81 Furdell, *Fatal Thirst*, pp. 135–6; O'Donnell, 'Changing social and scientific discourses', pp. 1108–11.
- 82 Anon., 'Treatment of diabetes', p. 527.
- 83 W. Hale White, 'An address on glycosuria', *Lancet*, 183:4719 (1914), 367–73, at p. 370.
- 84 Leyton, 'The modern treatment of diabetes mellitus', p. 254.
- 85 Lawrence, *The Diabetic Life*, 6th edition, p. 10.
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