



# Exercise and mental health: It's just not psychology!

GUY FAULKNER<sup>1\*</sup> and STUART BIDDLE<sup>2</sup>

<sup>1</sup>School of Postgraduate Medicine and Health Sciences, Department of Exercise and Sport Science, University of Exeter, Heavitree Road, Exeter EX1 2LU and <sup>2</sup>Department of Physical Education, Sports Science and Recreation Management, Loughborough University, Ashby Road, Loughborough LE11 3TU, UK

Accepted 11 March 2001

Exercise has been suggested as an effective adjunctive treatment for a range of mental health conditions. In this study, we explored the perceptions of exercise held by course directors of doctoral training programmes in clinical psychology in England. Given the exploratory nature of the study, we used a qualitative design incorporating semi-structured interviews. Although most participants held favourable attitudes regarding exercise, this was related more to exercise being seen as a positive lifestyle activity that is worth encouraging, rather than exercise being recommended as an adjunctive treatment for mental health problems. Inductive analysis identified four themes that underpinned such a response: inconsistent positions on the evidential criteria used to evaluate the role of exercise, which masked themes regarding the perceived 'simplicity' of exercise interventions, a practical adherence to a mind–body dichotomy, and the incompatibility of exercise with traditional models of understanding and treating clinical conditions. The barriers we have highlighted will continue to hinder the consideration of exercise as a common therapeutic adjunct at present. Although further research is required to examine the relationship between exercise and mental health, consideration must also be given to how such research should be disseminated to mental health professionals.

*Keywords:* clinical psychology, exercise, perceptions, therapy.

## Introduction

One of the noticeable trends in the sports sciences over the past decade or so has been the interest shown in physical activity and exercise for health. This is not only reflected in the addition of the word 'exercise' to some journal titles and professional organizations, but a clear reference to exercise as a legitimate focus for research in journals that do not refer to exercise in their title, such as the *Journal of Sports Sciences*. Biddle's (1997) analysis of research trends in two international sport and exercise psychology journals during the 1990s showed that the topic of 'exercise and mental health' increased in frequency by 400% from the late 1980s to the early 1990s. In addition to such research trends, sport and exercise scientists have increasingly been concerned with the professional application of their work, such as sport psychologists applying principles of psychology for the enhancement of performance in sport. Some of this work has been conducted so

that it leads to appropriate evaluation and dissemination in research journals. In the same way, those working in exercise science are reinforcing their links with health professionals. This increasing diversity is a sign of maturation and has involved greater collaboration between researchers and practitioners from different disciplines within and outside the sport and exercise sciences. The application of sport and exercise knowledge, therefore, needs to address both the sports science community and those working in other associated fields.

For example, the authors of a recent review were left questioning why exercise had not become a more popular treatment alternative considering the strength of their reviewed evidence (Tkachuk and Martin, 1999). The case for exercise and physical health is widely accepted by medical authorities. In addition, there is growing research evidence that exercise can promote mental health and serve as an adjunctive treatment for various conditions, such as depression, anxiety and schizophrenia. Although methodological concerns exist, there is cautious optimism regarding the potential efficacy of exercise as a therapeutic possibility

\* Author to whom all correspondence should be addressed. e-mail: g.e.j.faulkner@exeter.ac.uk

(Martinsen, 1995; Burbach, 1997; Craft and Landers, 1998). It has been estimated that the cost of mental health problems for 1996–97 was over £32 billion (NHS Executive, 1996). At any time, one in seven adults is experiencing a mental health problem (OPCS, 1995). The potential role of exercise in alleviating this financial burden and improving quality of life deserves attention.

The recently released Physical Activity and Mental Health Consensus Statements (Biddle *et al.*, 2000; Mutrie, 2000) suggest, among other assertions, that there is support for a causal link between exercise and reduced depression in clinical groups. However, as Lomas (1991, p. 55) remarked, 'words, whether credible or not, rarely flow automatically into action'. In reviewing the dissemination of consensus statements, Lomas concluded that consensus recommendations have little impact on the behaviour of practitioners, since their dissemination generally relies on the existence of information-seeking practitioners who are rational and highly motivated.

Regardless of any mental health benefit, exercise should be promoted, since the physical needs of psychiatric clients are often underserved (Karasu *et al.*, 1980) and there is little evidence that health promotion efforts are being targeted at mental health populations (e.g. Brown *et al.*, 1999). Currently, the inclusion of physical activity in structured rehabilitation programmes or as a component of care programmes is not a nationally applied standard in the UK. Hale (1997) failed to mention exercise at all in discussing the treatment of depression in the UK, and the American Psychiatric Association has not endorsed the role of exercise in treating mental illness such as depression (Dishman, 1995). As in the broader context of health promotion research, such reluctance is probably due to an overemphasis on efficacy studies, with little attention being given to the development and evaluation of effective methods for broader dissemination and diffusion of related findings (Oldenburg *et al.*, 1999).

This is essential, as research suggests that most individuals do not evaluate a change in practice solely on the basis of scientific studies of its consequences (Rogers, 1995). Rather, the consistency of the innovation with an individual's attitudes and beliefs might become critical to understanding how an evidence-based adjunctive therapy, such as exercise, is to become a more popular treatment alternative. We need to understand how exercise is viewed through the eyes of those who may act on the evidence supporting exercise. However, little research exists concerning the perceptions of such evidence held by mental health professionals, the barriers to application or even how such research would be applied.

## Attitudes regarding exercise as therapy

Limited research in the United States has explored therapists' attitudes to exercise and their own exercise involvement (Royak-Schaler and Feldman, 1984; Barrow *et al.*, 1987; Burks and Keeley, 1989; McEntee and Halgin, 1996). These studies were all small self-report surveys that used differing definitions of exercise. However, it is encouraging that 'exercise as therapy' was considered appropriate by many therapists, with the most significant exercise promotion occurring through those who exercised regularly themselves (McEntee and Halgin, 1996). Finally, there may be differential attitudes towards exercise depending on therapeutic orientation (Barrow *et al.*, 1987). Barrow and co-workers found that cognitive-behavioural and humanistic psychologists were more likely to recommend exercise to patients than those with psychodynamic and psychoanalytic orientations.

In the most comprehensive study to date, McEntee and Halgin (1996) concluded that 'many therapists simply do not see their work as pertaining to the body' (p. 55) and that 'topics such as exercise are viewed as unimportant by some mental health workers who fail to appreciate the relationship between physical and psychological health' (p. 58). They suggested this may be due to increased specialization in the health fields. While greater connections are made between various health behaviours in general, many physicians and psychologists retain a narrow scope of specialization, failing to appreciate the interrelationship between the body and the mind. As Baerveldt and Voestermans (1996, p. 693) suggest, 'the body as such is hardly a subject matter for psychology. Psychology is a science "buried in thought"'. Furthermore, psychology, with its emphasis on positivistic, scientific methods of research (Nicolson, 1995; Murray and Chamberlain, 1998), can serve to reinforce mind-body dualism through its objectivist stance (Yardley, 1999). Accordingly, the body and, possibly by implication, exercise, may be ignored in traditional formulations of treatment (Faulkner and Biddle, 1999).

In the UK, clinical psychologists can be key stakeholders in the therapeutic process and are often involved in the development of treatment programmes. They may be essential in legitimizing the inclusion of exercise within care packages for clients and supporting access to physical activity. The aim of this exploratory study, therefore, was to assess perceptions of the use of exercise as an adjunct therapy. Specifically, course directors of doctoral training programmes in clinical psychology were targeted to delimit sample selection. Their courses, in partnership with clinical placement, are the primary sources of treatment dissemination. Although not the goal of qualitative research, we hoped our results would

illuminate how exercise could be perceived by mental health professionals in general rather than by clinical psychologists in particular. These professionals will be an important resource for community interventions designed to increase physical activity in a neglected population and will be essential in legitimizing the inclusion of exercise within care packages for clients and supporting access to physical activity. Fox (2000) concurs that exercise is rarely used as a form of treatment for mental disorders such as depression and that the reasons for this are not entirely clear. This paper seeks to redress this gap in our knowledge.

## Methods

### *Orientation*

An idiographic methodology was considered most appropriate to understand the views of professionals. Giving clinical psychologists an opportunity to discuss their perceptions of exercise was seen as critical to helping us, as exercise scientists, begin to develop an understanding of how exercise is framed and how dissemination attempts may be shaped to accommodate a range of beliefs. Our paradigmatic assumptions consider reality to be multiple and knowledge to be socially constructed. Consequently, interpretations will vary according to the context in which data are collected and analysed and are ultimately imbued with subjectivity (Madill *et al.*, 2000). Given the exploratory nature of the study and the interest in focusing on the words and meanings of participants, how exercise is 'talked' about becomes more salient than any suggestion of irrevocable truth regarding attitudes towards exercise. As Wolcott (1990, p. 130) suggested, 'We are better off reminding readers that our data sources are limited, and that our informants have not necessarily gotten things right either, than implying that we would never dream of reporting an unchecked fact or unverified claim'. The interpretations we offer are partial and situated, rather than universal knowledge (Stake, 1994).

As researchers, there were several ways in which we were firmly located within the research process. The current study was conceptualized after the first author had worked in a mental health setting and delivered an exercise intervention (Faulkner and Sparkes, 1999). The intervention was deemed successful by mental health colleagues, yet no attempt was made to develop further opportunities for physical activity. Barriers such as time constraints were certainly an issue, but more subtle and complex issues appeared to underline this reluctance. From this experience and our knowledge of the research literature, we believe exercise can play a useful adjunct to traditional forms of treatment for some

individuals with a mental health concern but that it is not a panacea. Such an orientation clearly drove the creation of the present study to understand more about how mental health professionals view exercise as an adjunctive therapy.

### *Participants*

The course directors for all English doctoral programmes in clinical psychology ( $n = 21$ , as identified by the clearing house for postgraduate courses in clinical psychology) were each sent a letter explaining the nature of the project. All individuals who expressed a willingness to participate were included in the study. In total, 15 course directors were interviewed over a period of 5 months, in addition to one lecturer who was delegated the task by their course director. Two assistant directors, two lecturers and a course director of a Doctoral Conversion programme in clinical psychology were also interviewed. Course directors representing four institutions declined to participate and another could not be contacted. Lack of time was given as the reason for non-participation. Therefore, the response rate for courses covered was 76%. In total, 9 women and 12 men were interviewed, who had a mixture of academic and service experience and wide research interests.

### *Procedures*

A standardized format was initially developed for the interview schedule (copies available from G.F.), although the presentation of topics sometimes varied and flexibility was allowed in probing interesting issues that arose. In keeping with an emergent design, the schedule was continuously adapted on the basis of each interview. Within each interview, three topics were examined through open-ended questions: (1) general perceptions of exercise as a therapeutic modality (e.g. 'Would you consider exercise to be an adjunctive therapy for depression?'); (2) the inclusion of exercise within course curricula (e.g. 'Are you aware of exercise being discussed on your course?'); and (3) a set of questions covering the promotion of exercise in clinical practice (e.g. 'Have you ever recommended exercise in clinical practice?'). A series of secondary questions and probes was also used when appropriate. Given the dominance in the literature of studies of exercise and depression, this clinical condition was often referred to as a prompt.

Interviews were conducted by the first author over the telephone. Although face-to-face interviews are preferable, they can be difficult to organize and set up. This may be particularly true when trying to access busy professionals, maintaining longitudinal contact or when participants are spread widely geographically making

travel expensive. Telephone interviews are accepted as an alternative and suitable mode of data collection (Marcus and Crane, 1986; Groves *et al.*, 1988).

All participants expressed a preference for a telephone interview and gave verbal consent to having their interview recorded on audiotape. Confidentiality was ensured and a suitable time organized for the interview to take place. Because of the busy schedules of the interviewees, we believed telephone interviews would provide a higher response rate and allow a greater geographical area to be covered at minimum expense. In addition to the pragmatic reasons for this choice, fewer negative effects have been reported with telephone interviewing. For example, social desirability is reduced, since the visual characteristics of the interviewer cannot be observed (Groves and Kahn, 1979). Conversely, there is some evidence that open-ended questions asked over the telephone produce less detailed answers. Marcus and Crane (1986) concluded that, at least when initial contact had been made in person rather than through 'cold calls': (1) response differences between telephone and face-to-face interviews have generally been modest; (2) for reports of health and illness behaviours, there is no conclusive evidence that telephone interviews provide less valid data than in-person interviews; (3) differences in the mode of interview for response burden and interviewer effects are not especially noteworthy.

The lack of 'face-to-face' contact is a potential weakness, although it is difficult to ascertain how interview studies typically use this information, if at all, in their analysis procedures. In some cases, this lack of contact may benefit data collection. For example, Carr (1999) reported 29 telephone interviews with patients discussing their experiences of pain 6 weeks after discharge from hospital. For Carr, the data elicited were of a richness and depth not achieved with face-to-face semi-structured interviews. Three reasons were suggested for this: the anonymity offered by the telephone; the distance from care, in that the patients were less worried about criticizing the system; and less chance of the interviewer interrupting meant that pauses might have helped the respondents relax and talk more openly. In the present context, given the time constraints on the participants and the good response rate that was achieved, telephone interviews were considered acceptable for an exploratory study of the perceptions held of exercise. Telephone interviews have also been reported to be satisfactory in collecting data on exercise prescription scheme participation (Martin and Woolf-May, 1999) and the retirement experiences of elite gymnasts (Kerr and Dacyshyn, 2000).

As with interviewing face-to-face, several strategies were tested and developed. Initially, two pilot interviews were conducted with a mental health professional to

gain experience of telephone interviewing and specific feedback about the content of the interview and the process of the telephone recording. Feedback about the content of the interview and its process was sought; this allowed the interview technique to be revised. In particular, further opening questions were introduced to offer respondents suitable time to discuss their own personal histories, research interests and current roles, to develop rapport and provide them with time to adjust to the nature of the interview.

After each interview, reflections about the interview were noted in a field diary, which was used to inform ongoing analysis. Three issues need elaboration. Methodologically, initial reflections identified the potential of rushing through the interview. Given no visual cues, interactions may be rushed to provide continuity (Groves and Kahn, 1979). As Marcus and Crane (1986) suggested, deliberate reminders were given to respondents to take their time and the number of interview probes was increased. Secondly, the emergent design allowed flexibility in pursuing new avenues of inquiry as data collection proceeded. The notion of 'compatibility', as discussed below, arose from these field notes and became an issue that was developed in later interviews. Finally, the field notes raised issues about the way in which the participants talked about the evidence for exercise. Examples of show concessions (Antaki and Wetherell, 1999) were noted, where respondents would make a show of conceding that exercise may be beneficial for depression before reprising initial doubts. Specifically, this can be an offensive conversational structure that acts as a cheapener – making something a concession serves to devalue the opposing case (Antaki and Wetherell, 1999). This study makes no claims to conversation analysis (Sacks, 1992), but such awareness helped develop the evidential theme. Nebulous reference to the 'evidence' was often used to discount the potential of exercise as an antidepressant.

### *Analysis*

The audiotaped interviews were transcribed and then scrutinized through a process of close reading so as to become immersed in the data and understand the participants' perceptions. Initially, inductive analysis was used to identify, code and organize themes arising from the raw data, with quotations serving as units of analysis (Maykut and Morehouse, 1994; Coffey and Atkinson, 1996). The interview transcripts were broken down into discrete units and coded within each transcript. Each code was based on the actual words of the respondent. These codes, tagged by initials, page and line number, were then examined and organized into themes. This was done using the constant comparative method

(Glaser and Strauss, 1967) to compare and contrast each coded data unit to allow categorization into new themes. Drawing on field notes and using this constant comparison approach across responses from all of the participants assisted the development of plausible interpretations from the data (Wolcott, 1994) concerning perceptions of exercise. Relationships between these interpretations were grounded in the data (Strauss and Corbin, 1994) and form the basis of the 'Outcomes' section in this paper. Throughout the analysis, these interpretations were also shared and discussed with the second author as a critical friend to challenge the identified themes and their connections and to develop notions of authenticity, fidelity and believability (Sparkes, 1998). Finally, a report was sent to the participants for their comments on the interpretations made in a form of member checking (Lincoln and Guba, 1985), which offered an opportunity for reflexive elaboration (Bloor, 1997).

Two participants responded favourably about the interpretations made by the authors. For one participant (L12), who was sceptical of the case for exercise, the interpretations were considered fair and balanced. This participant also took the opportunity to highlight his methodological concerns regarding 'exercise and depression'. The other participant (CD7), who was very positive about the use of exercise as an adjunctive treatment, was 'not surprised by the resistance, from some within clinical psychology, to recognize the importance of the role of exercise in depression'. Consequently, no changes were made to the interpretations made on the basis of this limited response. This may be indicative of some of the barriers described or a limitation of member checking itself (Sparkes, 1998).

## Outcomes

The outcomes are presented in two sections (for all quotes, the following codes apply: CD = course director, AD = assistant director, L = lecturer; numbers refer to specific participants). First, general perceptions of exercise and its marginalized status are discussed. Secondly, to understand low exercise promotion, four key thematic barriers that emerged from the data are presented as underpinning these perceptions. In particular, inconsistent positions on evidential criteria used to evaluate the role of exercise mask the themes of incompatibility, practicality, dualistic tendencies and simplicity. In presenting the outcomes, quotations are used to illustrate key points and allow the participants to speak for themselves (Wolcott, 1994). This allows 'naturalistic generalization' by the reader in determining how transferable the findings are to one's own context or experience (Stean, 1998). Providing insight

rather than any definitive 'truth' becomes paramount. Eventually, the reader must decide whether the study has anything to offer. Although our own interpretations will be offered, readers will also 'add and subtract, invent and shape' in the construction of their understanding (Stake, 1994). In telling our realist tale (Van Maanen, 1988), theory and data will be woven to illuminate, contrast and develop links with wider issues of theory and practice. These references also offer a context as to how our own interpretations of the data were formed.

### *General perceptions*

Half of the participants were very positive about the potential role exercise could play in the treatment or rehabilitation of clinical mental health conditions. Exercise was most often associated with antidepressive and anxiolytic effects. In addition, direct changes in mood were also mentioned, as well as elements of distraction and exercise providing 'structure to the day'. However, there was a general sense in which exercise would be useful across a range of conditions, 'almost all of them where self-esteem, self-efficacy and mastery helps people to empower themselves' (CD1). One director was uncertain how you could argue that exercise was not beneficial:

It's a bit like saying, this is part of the difficulty, why could breathing be effective? It's such an integral part of being which is very often taken away from us either by the lifestyle that leads to the onset of depression or whatever or the nature of the side-effects that make people sedentary (CD7).

The common-sense view that physical activity is an integral aspect of 'being', often expressed in the hollow incantation of 'the healthy body, healthy mind' cliché, may hinder its acceptance as an adjunctive therapy. As Glenister (1996, p. 8) concluded when reviewing the exercise and mental health literature, 'common sense suggests exercise would be useful [as therapy] but despite this, *or because of this*, the role of exercise in the management of minor psychiatric problems has received little attention' (emphasis added).

Conversely, the other half of the respondents considered exercise more as a potential (and effective) 'normalizing' strategy, which may be included in some form of activity scheduling. More than one participant downplayed the connotations of exercise as therapy:

A lot of our people [clinical psychologists] are clearly trying to enable them [clients] to join in activities, but it's more with a social emphasis, it's the social emphasis, not sending someone on the marathon, it's not sending someone on an individualized programme of exercise. It's

much more to do with treating what could be seen as social dysfunction as opposed to anything else (CD3).

Although depression has received the most support in the literature, it was for depression that these critical participants expressed most concern. One director associated any benefit from exercise with specific affective states rather than specific clinical conditions such as depression. The possibility of exercise being used to deflect attention from other problems was reported, particularly in the sense of the 'complexity' of factors underlying depression in some clients. Diversionary activities with which exercise was equated were also described as not being beneficial for depression. Most prominent were concerns over long-term benefits: 'I'm less certain about depression . . . because I'm not sure whether what's being talked about is a short-term endorphin burst or whether you're talking about something that's longer-term restructuring' (CD 6). Exercise was often related to more short-term mood changes or changes in affective states rather than long-term cognitive benefit. By implication, exercise was deemed lacking in sophistication to tackle the complexity of factors underlying depression in some clients. Evidence does exist that suggests exercise can have enduring effects on depression (Mutrie, 2000).

The participants suggested that it was rare to promote exercise as an adjunct treatment for depression. Some offered approximate percentages, ranging from not at all to 25% of clinical psychologists who might suggest 'part of the treatment regime should include exercise'. However, one director was very positive about using exercise:

Definitely, I mean certainly for patients that I see myself, I have to say that in about 75% of those with depression who I see, there will be many different things I may suggest to them. One will always be to do with physical exercise of some kind, but a trip down to the gym and a visit to the GP for a check-up is one of several things I might suggest (CD13).

One director specifically mentioned the benefits he had found in using exercise with angry and violent clients, which was 'very useful significantly often for me to think of it as one of the major arms of working with clients who have that amount of anger' (CD14). Clinical psychologists will consider a variety of activities that an individual might be able to engage in. It was clear that, for some directors, when a client had a history of interest in exercise, this could be used to advantage:

I've got somebody now who we've started getting involved in the gym who's got a very severe psychosis. Used to be a footballer, put on a lot of weight and was feeling like he was beginning to want to get back into

normal life and we decided on a programme of exercise and that was a specific part of his care plan (CD18).

An overall feeling that suggesting exercise was not common easily outweighed such positive responses. For example, one participant was quite adamant in his perception of the extent of recommending exercise: 'Good psychologists, I would say not that much' (L12). Perceptions of exercise may be broadly positive but recommending exercise as an adjunctive therapy was rare. Alternatively, promoting 'recreation' or a 'healthy lifestyle', rather than exercise itself, was perceived by some to be more common.

### Barriers

Examining initial perceptions of the possible use of exercise as an adjunctive therapy does indeed reveal that exercise is extremely marginal in the treatment of mental health conditions. Generally, exercise was inconsistent with most psychodynamic approaches, in comparison with more cognitively oriented therapies (Barrow *et al.*, 1987). Some saw exercise as possibly being readily congruent with cognitive-behavioural therapy. However, the nature of one's training was seen as most influential:

Well, what one believes and what knowledge one has depends upon one's experience and everybody's experience is different and everybody's teaching what they've been subjected to in terms of their teaching programmes and training, therefore they'll think differently (CD9).

Exercise is absent from this occupational socialization. Only two directors were aware of exercise being mentioned as an adjunct therapy for depression within their course, with a third emphasizing the teaching of exercise as a stress management technique. Ten directors suggested that there was no mention of exercise, while the remainder were unsure or suggested that exercise may be briefly mentioned in relation to cognitive-behavioural therapy, activity scheduling or in student case studies. It is important to recognize that course directors will not be familiar with the entire course content of their programmes. However, as it would appear that exercise is not addressed on most courses, it is hardly surprising that its potential has not been realized in practice or research (Tkachuk and Martin, 1999).

Time constraints understandably ensure that only the 'core psychological models' are covered. Although necessary, this tends to suggest that material which is not covered is unimportant. There was another sense in which physical health and, by association, exercise clearly fell under the remit of health psychology, in that coronary rehabilitation and pain management were

often mentioned. The links between exercise and mental health were not always readily perceived, revealing an uneasy dichotomy in which physical treatment was perceived as being compatible for health psychologists but not for clinical psychologists. In a climate of ever-increasing specialization, the structural division made between health psychology and clinical psychology tends to narrow the appropriate treatment strategies that are specific to that profession and which contribute to promoting a unique identity. One course director was actively trying to break this norm:

I think that the psychology of health care incorporates physical and mental health. I know there's a discipline of health psychology, but in terms of client practice, we don't want health psychologists and clinical psychologists, we just want the clinical applications of psychology (CD12).

For others, the mental health benefits of a 'physical' treatment such as exercise were not strongly endorsed; after all, that was someone else's niche.

### Evidence

Awareness of the exercise and mental health literature was extremely limited, with most participants being unfamiliar with existing research. Given the variety of each individual's interests and specialities, this is not surprising. However, this lack of awareness was interpreted by many to imply that there was not much evidence in the first place, as the following show concession suggests (Antaki and Wetherell, 1999):

*There is no evidence. Although you might find* the odd paper which says that exercise is effective here and there, as far as treating clinical problems, populations with psychological and psychiatric problems, to my knowledge *there is no evidence* (L12).

Propositions and reprise are indicated in *italics* and contrast marker in **bold**. The speaker has first made a proposition – 'There is no evidence' – which is very easy to disconfirm. Consequently, the speaker then moves to defend against the possibility of being challenged by making an explicit show of conceding – 'Although, you might find' – and then reprising the original proposition. Antaki and Wetherell (1999, p. 11) suggest that 'making a show of conceding fireproofs something in the speaker's own position, making it less liable to challenge, upset or rebuttal'.

Conversely, the lack of randomized control trials involving exercise was raised. In the climate of evidence-based practice, these are a necessity. This is despite the general distaste of the interviewees for randomized controlled trials, who questioned the ecological utility of

such trials, the multitude of inputs in many treatment 'packages' and the difficulty of non-random dropout. However, there were several conundrums. First, for more than one director, evidence-based practice was not the sole arbiter of treatment choice:

The biggest factor out there is probably personal bias ... the degree of personalized faith about whether a particular kind of therapy is a good thing to do. I think that's probably the strongest factor out there in deciding how most clinicians actually go about their work (CD6).

Questions are then raised about what informs this personal bias or prompts exploration of new avenues in the research literature. The socializing influence of training programmes is certainly important where, as previously discussed, exercise is rarely addressed. Five directors cited personal exercise behaviour as the most important factor in deciding whether exercise was perceived as a beneficial therapeutic modality.

Secondly, five directors suggested that qualitative research – in the sense of 'suggestive' evidence – would be welcome. Studies with reasonable design features, such as quasi-experimental studies, would also be acceptable. Such research is relatively abundant. In the words of one director, 'We might want to ask the question, if there's evidence for exercise, why is no-one mentioning it? That would be a more interesting question to us, to be honest' (CD4). An interesting question! Hughes (1984) reported 1100 published articles exploring exercise and mental health, with at least a further 250 since then (Plante, 1993). More recently, Craft and Landers (1998) identified 30 studies on exercise and clinical depression in a meta-analysis, while Mutrie (2000) reviewed ten randomized control trials examining exercise and clinical depression.

Thirdly, for many participants, very few psychological studies met the demands expected of evidence-based practice:

I suppose where we can get good evidence it's used but there are vast tracts of things that we're asked to deal with where the evidence is certainly not of the quality of something like a Cochrane review would require with randomized controlled trials. There just isn't the bulk of it in vast areas of psychology (CD2).

Another director reinforced such thinking: 'Well, I must say, if the evidence for it was as strong or as weak as some of the other aspects of intervention, then I certainly wouldn't have any objection to that at all' (CD4).

In the case of exercise, more stringent evidential criteria are being applied and this is a ready-made defence for something that may be seen as 'unnatural'. However, the participants were unable to offer critical

insight into the nature of existing research because they were unaware of its existence in the first place. The burden of proof still remains on researchers in the field to undertake experimental trials. More importantly, journals from disciplines other than sport and exercise science should be sought for the dissemination of research into exercise and mental health, although this will not in itself guarantee implementation. Selective attention exists to research that is moulded through more subtle influences. As one director remarked, 'My intuition is that there's a reasonable evidence base for exercise, I probably have a suspicion that it's not exploited enough' (CD17).

#### *Compatibility/models*

This lack of 'exploitation' may be due to the possible incompatibility that exercise is perceived to have with the traditional roles and values of clinical psychologists regardless of therapeutic orientation. Although perceptions of exercise, particularly in relation to depression, are varied, a recurring theme throughout these discussions focused on the notion of being at the 'forefront'. Given the models used to understand and develop interventions for clinical conditions, exercise would not be at the forefront of thinking:

I think the problem with things like depression and anxiety is that the theoretical constructs that have been used to try and understand these problems and then treat them, exercise or the need for bodily activity isn't particularly prominent . . . it's just not within the constructs of most psychologists as they think about disorders (CD2).

More specifically, 'Clinical psychologists generally tend to think as science-practitioners and until we have evidence that exercise aetiologically is implicated in depression, treatment will not address it' (L12).

According to one director, there is 'a tendency for us [clinical psychologists] to remain married to our own models and preferences and not to shift' (CD2). If exercise is seen as tangential to the core psychological models of the day, it then follows that recommending exercise is incompatible with what one perceives (and is exposed to believe) clinical psychology to be. Drawing on innovation diffusion research, the compatibility of an innovation (an idea, practice or object) with accustomed roles and values is significantly related to its possible adoption (Rogers, 1995). Diffusion is much slower if the innovation (in this case, exercise) requires the prior adoption of a new value system. This incompatibility was reflected in many guises:

Because we're taught to do things that tend to favour cognitive type interventions . . . they're all the same, they're to do with people's thinking and a little bit of

doing. But the emphasis on the doing, it's been a lower emphasis, so I think historically no, I don't think exercise is necessarily seen to be a fitting intervention offered by a clinical psychologist (CD13).

There was also some resistance to a strict reliance on 'models' in viewing exercise as another arm of any integrative multimodal treatment package. Using a holistic package, perhaps delivered within a multidisciplinary team, exercise was considered compatible, dependent on the needs of a particular client.

#### *Practical adherence to a mind-body dualism*

There was a long tradition of holistic approaches to health, stemming from the ancient Greeks, before René Descartes proposed a mind and body split. Cartesian dualism assumes no significant interaction between mind and body, which allows each component to be addressed by separate and distinctive disciplines in isolation. This has encouraged the development of a focus on disease and illness that is separate from other dimensions of the person (Tudor, 1996). Dualist tendencies, inherent in psychology, have already been noted (Nicolson, 1995; Baerveldt and Voestermans, 1996; Murray and Chamberlain, 1998).

All participants in this study stated that they had dispensed with such a false dichotomy. However, it was unclear how such a belief informed their practice, particularly if physical activity was not considered appropriate in practice or worthy of inclusion on courses. Although Rejeski and Thompson (1993) believed that dualism was slowly losing influence, Mutrie (2000) suggested that a dualistic tendency still persisted in treating the mind (mental health) and body (physical health) as separate issues. This results in a failure to see as a priority the mental outcomes of a physical treatment such as exercise (Beesley and Mutrie, 1997). This statement is supported in the context of the current study. For example:

I suspect it's [the body] certainly not considered as much as it should be. The tradition is that we're psychologists, we deal with minds. And our first priority is that (CD19).

If you take clinical psychology as a group *per se*, then I think you would say the focus is purely on the mind and how that functions (L8).

Some directors accepted that the 'incongruency' between recognition and active consideration was of concern:

I mean there's an awful lot of complaints from people, from clients, they actually talk about their bodies . . . and that's often seen as a kind of sideline, as something well if only we could get them to understand what their thoughts

are doing or their feelings or something. But actually, it might be something that we could address more directly. Say if people actually did feel better about their bodies, then they would feel better about themselves (CD4).

In the literature, this incongruity is also problematic. Seedhouse (1998) suggested that a pervasive curse of Western culture is the belief that health workers should specialize exclusively in the 'physical' or the 'mental'. At times, exclusivity may be necessary. Such a split between body and mind allows for 'differential diagnosis' (Yardley, 1999) but goes against our natural sense of what holistic approaches to treatment should entail. As in this context, attempts to overcome such dualism might often be characterized more by rhetoric than reality (Ogden, 1997). Lip service is paid to holistic treatment at the same time as a practical adherence to a mind-body dualism shaped through clinical psychology focusing on mental illness through the gaze of 'psychological' methods of treatment:

I think a lot of traditional psychologists probably focus on the mental health problem, that's the primary reason why the person is being referred . . . they reflect the presentation of the problem as primarily psychological so they reflect psychological methods of treatment (L21).

### *Simplicity*

The final theme concerned issues of legitimacy and de-professionalization if exercise was used as a specific adjunct rather than as a general 'normalizing' activity. As commented by one director (CD13), exercise does not appear as a 'terribly glamorous solution', neither 'clever enough' nor 'psychologically based enough'. It is important to stress the meaning of simplicity within this context, since the behaviour in question – exercise – has been remarkably hard to sell to the community at large. Two directors pinpointed the concern:

I think there's an issue almost of legitimacy, like you've done all this training with quite sophisticated models and interventions and psychological work, and you're asking people to go out for a run. It's almost too simple (CD18).

One barrier will be almost the fear of being involved with something that isn't psychological enough. This isn't our territory, so leave it to the sports people. I think there could be quite a bit of that, almost as if it's a barrier of almost intellectual snobbery, that this is just too basic (CD7).

Martinsen and Stephens (1994) first speculated that, in psychiatry, the status of exercise intervention was low. They suggested, as did these course directors, that this was in part due to exercise interventions being so 'simple'. Therapists who spend years learning a

therapeutic technique are resistant to the concept that possibly analogous results could be achieved through exercise (see Craft and Landers, 1998). Given concerns about evidence and the possible incompatibility of exercise with common conceptual models that tend to ignore the body, simplicity becomes the final problematic issue:

There is this sort of great wish to well, get mentalistic about mental health problems . . . most people tend to attribute problems like depression to a very profound, unobservable historic reason and therefore they might well find straightforward physical remedies to be absurd at one end and trivial and inconsequential nearer the bottom end (CD20).

At the same time, this perception of simplicity was seen as being potentially de-professionalizing in giving back some control to the individual with mental health concerns:

I believe there is some resistance to what might be termed kind of common sense or folk ways of intervening. I think that because those kinds of things are common sense, and something people can take control over themselves, I think sometimes professionals without meaning to . . . might not actually be as welcoming of some of those, because in a sense it gives people back control over their own problems (CD4).

Another director related a further implication of a 'common-sense' strategy that gives back 'control' to clients: 'It wouldn't take that much training and work . . . it would be more of a sort of, not a profession specific type of intervention' (CD18). That is, anyone could do it!

The central remit of clinical psychology programmes is to deliver the knowledge and skills to treat mental illness rather than the knowledge and skills to promote mental health. It logically follows that courses are geared to the prevailing models used for understanding and alleviating mental illness. This has important implications. First, treatments that are 'tangential' to traditional models can be sidelined by waving the wand of evidence-based practice. Secondly, considering the adjunctive role of exercise, it may be that it is more suitably considered a strategy for promoting mental health rather than treating mental illness.

A shift in emphasis towards mental health rather than mental illness has subtle but inarguable ramifications as to who delivers and what is delivered to individuals with mental illness. If exercise is perceived purely in terms of mental health rather than mental illness, then it does become 'too simple', 'something people can do for themselves' and 'not particularly glamorous'. At the extreme, if the evidence for exercise were perceived

to be conclusive, then there would be wide-ranging implications: 'It couldn't be a treatment on its own. I mean I wouldn't be doing clinical psychology if that's all I did' (CD20).

In contrast to feelings of de-professionalization, other directors felt that, given the difficulty in helping clients to be more active and maintain participation, there was still plenty of work to be done. Another would be quite happy to use whatever treatment worked, whether exercise or a new 'wonder' drug, particularly if it was based on firm evidence. At which point we have turned full circle. For many participants, exercise just was not 'psychological' enough.

## Summary

To our knowledge, this is the first qualitative study to examine perceptions of exercise as an adjunctive treatment for mental health concerns. A continued adherence to a dualistic notion of mental illness and mental health, compounded by increasing specialization in health in general, serves to limit acceptance or awareness of the evidence for exercise and the consideration of exercise as a common therapeutic adjunct at the present time. Rather, exercise was interpreted as a possible normalizing strategy and generally an activity to be provided by other health professionals. Despite a growing evidence base, the application of exercise as a therapeutic adjunct remains problematic.

Although the telephone interviews provided a rich source of data, as others have found (e.g. Ziebland *et al.*, 1998; Carr, 1999), the study was weakened by the 'snapshot' nature of the perceptions taken. Follow-up interviews would have allowed greater reflection for both interviewer and participants as to the meanings offered and interpreted during the research process. Mutrie's (2000, p. 3) claim, however, that there may be 'a lot of work to be done to convince those who deliver mental health services to focus on the links between mind and body and to look more positively on the role of exercise in mental health issues' rings true. How to change this current state of affairs is a difficult question. As Gauvin and Spence (1995, p. 445) observed, 'there is no established infrastructure for the translating of research into practice in exercise-related psychology'. This is clearly exacerbated by the different corporate goals, accountabilities and reward structures held by academic groups and practitioners (King *et al.*, 1998). If there is conviction in the current research evidence, as exemplified by the UK National Consensus Statements (Biddle *et al.*, 2000), then it is time that greater consideration is given to sophisticated forms of dissemination, which will necessitate addressing some of the barriers revealed in this study. British exercise

scientists could play an instrumental role in this dissemination process.

The results of this study suggest that enhancing compatibility between exercise and common therapeutic strategies may facilitate such dissemination. For example, many participants cited difficulty in motivating depressed clients to exercise. This was connected with a lack of awareness of the current exercise guidelines, which are more flexible and less vigorous. Greater activity, which can be accumulated throughout the day, can also be promoted and easily fits into notions of activity scheduling in which many mental health professionals are already involved. Similarly, cognitive-behavioural therapy was the current treatment of choice for many participants, yet possible links with exercise were often not made. Exercise is an excellent behavioural modification that can influence cognitions. There is clear evidence that becoming physically active changes people's perceptions of their physical self and identity in a positive way (Fox, 1999). Such changes can also generalize to global self-esteem and other markers of well-being. Framing 'exercise' within the commonly used strategies of cognitive-behavioural therapy and activity scheduling may make it a more common consideration. This enhances compatibility with existing modes of clinical practice and allays perceptions of simplicity.

There is still much to learn about exercise as an adjunctive therapy. Further research is needed to examine the therapeutic and financial utility of exercise interventions. How such research is to be disseminated to health professionals must also be considered. At the same time, there is a need to examine how exercise is best delivered as an adjunctive treatment and what the role of mental health professionals will be. Until it is easier for mental health professionals to access opportunities for their clients, the use of exercise as a therapeutic medium will rely on serendipity, perhaps dependent on the personal interests and exercise behaviour of the clinician (McEntee and Halgin, 1996; McKenna *et al.*, 1998). Although an imperfect science (Dance and Neufeld, 1988), aptitude-treatment interaction research is also needed to guide mental health professionals in their decisions to consider exercise for particular clients.

Given time, psychology may begin to fulfil a promise made clear by the APA Task Force on Health Research as early as 1976:

No other discipline is better suited and equipped than psychology to discover, delineate, and demonstrate the organismic nature of humans and to encourage an ever-broadening realization that humanity's total functional health is threatened whenever either side of the interactive mind-body equation is neglected. Any program

for health care and illness management can achieve comprehensiveness and integration only as there is respect for the functional unity of the individual (p. 271).

In answer to the original question posed by Tkachuk and Martin (1999), conceptual barriers – towards which dissemination attempts have rarely been addressed – may continue to hinder the acceptance of exercise as a common therapeutic treatment at present. The challenge remains for both exercise and mental health professionals to seek a more unified approach to treatment.

## References

- Antaki, C. and Wetherell, M. (1999). Show concessions. *Discourse Studies*, **1**, 7–27.
- APA Task Force on Health Research (1976). Contributions of psychology to health research. *American Psychologist*, **31**, 263–274.
- Baerveldt, C. and Voestermans, P. (1996). The body as a self-ing device. *Theory and Psychology*, **6**, 693–713.
- Barrow, J.C., English, T. and Pinkerton, R.S. (1987). Physical fitness training: Benefits for professional psychologists. *Professional Psychology: Research and Practice*, **18**, 66–70.
- Beesley, S. and Mutrie, N. (1997). Exercise is beneficial adjunctive treatment in depression (Letter to the Editor). *British Medical Journal*, **315**, 1542.
- Biddle, S.J.H. (1997). Current trends in sport and exercise psychology research. *The Psychologist: Bulletin of the British Psychological Society*, **10**, 63–69.
- Biddle, S., Fox, K. and Boutcher, S. (eds) (2000). *Physical Activity and Psychological Well-being*. London: Routledge.
- Bloor, M. (1997). Techniques of validation in qualitative research: A critical commentary. In *Context and Method in Qualitative Research* (edited by G. Miller and R. Dingwell), pp. 37–50. London: Sage.
- Brown, S., Birtwhistle, J., Roe, L. and Thompson, C. (1999). The unhealthy lifestyle of people with schizophrenia. *Psychological Medicine*, **29**, 697–701.
- Burbach, F.R. (1997). The efficacy of physical activity interventions within mental health services: Anxiety and depressive disorders. *Journal of Mental Health*, **6**, 543–566.
- Burks, R. and Keeley, S. (1989). Exercise and diet therapy: Psychoanalysts' beliefs and practices. *Professional Psychology: Research and Practice*, **20**, 62–64.
- Carr, E. (1999). Talking on the telephone with people who have experienced pain in hospital: Clinical audit or research? *Journal of Advanced Nursing*, **29**, 194–200.
- Coffey, A. and Atkinson, P. (1996). *Making Sense of Qualitative Data*. London: Sage.
- Craft, L.L. and Landers, D.M. (1998). The effect of exercise on clinical depression and depression resulting from mental illness: A meta-analysis. *Journal of Sport and Exercise Psychology*, **20**, 339–357.
- Dance, K.A. and Neufeld, R.W.J. (1988). Aptitude-treatment research in the clinical setting: A review of attempts to dispel the 'patient uniformity' myth. *Psychological Bulletin*, **104**, 192–213.
- Dishman, R.K. (1995). Physical activity and public health: Mental health. *Quest*, **47**, 362–385.
- Faulkner, G. and Biddle, S. (1999). Exercise and schizophrenia: A review. *Journal of Mental Health*, **8**, 441–457.
- Faulkner, G. and Sparkes, A. (1999). Exercise as therapy for schizophrenia: An ethnographic study. *Journal of Sport and Exercise Psychology*, **21**, 39–51.
- Fox, K.R. (1999). The influence of physical activity on mental well-being. *Public Health and Nutrition*, **2**, 411–418.
- Fox, K.R. (2000). Physical activity and mental health promotion: The natural partnership. *International Journal of Mental Health Promotion*, **2**, 4–12.
- Gauvin, L. and Spence, J.C. (1995). Psychological research on exercise and fitness: Current research trends and future challenges. *The Sport Psychologist*, **9**, 434–448.
- Glaser, B.G. and Strauss, A.L. (1967). *The Discovery of Grounded Theory*. Chicago, IL: Aldine.
- Glenister, D. (1996). Exercise and mental health: A review. *Journal of the Royal Society of Health*, February, pp. 7–12.
- Groves, R.M. and Kahn, R.L. (1979). *Surveys by Telephone: A National Comparison with Personal Interviews*. New York: Academic Press.
- Groves, R.M., Biemer, P.P., Lyberg, L.E., Massey, J.T., Nicholls, W.L. and Waksberg, J. (eds) (1988). *Telephone Survey Methodology*. New York: Wiley.
- Hale, A.S. (1997). ABC of mental health: Depression. *British Medical Journal*, **315**, 43–46.
- Hughes, J.R. (1984). Psychological effects of habitual aerobic exercise: A critical review. *Preventive Medicine*, **13**, 66–78.
- Karasu, T.B., Waltzman, S.A., Lindenmayer, J.-P. and Buckley, P.J. (1980). The medical care of patients with psychiatric illness. *Hospital and Community Psychiatry*, **31**, 463–472.
- Kerr, G. and Dacyshyn, A. (2000). The retirement experiences of elite, female gymnasts. *Journal of Applied Sport Psychology*, **12**, 115–133.
- King, L., Hawe, P. and Wise, M. (1998). Making dissemination a two-way process. *Health Promotion International*, **13**, 237–244.
- Lincoln, Y.S. and Guba, E.G. (1985). *Naturalistic Inquiry*. Newbury Park, CA: Sage.
- Lomas, J. (1991). Words without action? The production, dissemination, and impact of consensus recommendations. *Annual Review of Public Health*, **12**, 41–65.
- Madill, A., Jordan, A. and Shirley, C. (2000). Objectivity and reliability in qualitative analysis: Realist, contextualist and radical constructionist epistemologies. *British Journal of Psychology*, **91**, 1–20.
- Marcus, A. and Crane, L. (1986). Telephone surveys in public health research. *Medical Care*, **24**, 97–112.
- Martin, C. and Woolf-May, K. (1999). The retrospective evaluation of a general practitioner exercise prescription programme. *Journal of Human Nutrition and Dietetics*, **12**, 32–42.
- Martinsen, E. (1995). The effects of exercise on mental health in clinical populations. In *European Perspectives on Exercise*

- and *Sport Psychology* (edited by S.J.H. Biddle), pp. 71–84. Leeds: Human Kinetics.
- Martinsen, E.W. and Stephens, T. (1994). Exercise and mental health in clinical and free-living populations. In *Advances in Exercise Adherence* (edited by R. Dishman), pp. 55–72. Champaign, IL: Human Kinetics.
- Maykut, P. and Morehouse, R. (1994). *Beginning Qualitative Research*. London: Falmer Press.
- McEntee, D.J. and Halgin, R.P. (1996). Therapists' attitudes about addressing the role of exercise in psychotherapy. *Journal of Clinical Psychology*, **52**, 48–60.
- McKenna, J., Naylor, P.-J. and McDowell, N. (1998). Barriers to physical activity promotion by GPs and practice nurses. *British Journal of Sports Medicine*, **32**, 242–247.
- Murray, M. and Chamberlain, K. (1998). Qualitative research in health psychology. *Journal of Health Psychology*, **3**, 291–295.
- Mutrie, N. (2000). The relationship between physical activity and clinically defined depression. In *Physical Activity and Psychological Well-being* (edited by S. Biddle, K. Fox and S. Boutcher), pp. 46–62. London: Routledge.
- NHS Executive (1996). *Burdens of Disease: A Discussion Document*. Leeds: NHS Executive.
- Nicolson, P. (1995). Qualitative research, psychology and mental health: Analysing subjectivity. *Journal of Mental Health*, **4**, 337–345.
- Ogden, J. (1997). The rhetoric and reality of psychosocial theories of health. *Journal of Health Psychology*, **2**, 21–29.
- Oldenburg, B.F., Sallis, J.F., Ffrench, M.L. and Owen, N. (1999). Health promotion research and the diffusion and institutionalization of interventions. *Health Education Research*, **14**, 121–130.
- OPCS (1995). *The Prevalence of Psychiatric Morbidity among Adults in Private Households*. London: HMSO.
- Plante, T.G. (1993). Aerobic exercise in prevention and treatment of psychopathology. In *Exercise Psychology: The Influence of Physical Exercise on Psychological Processes* (edited by P. Seragianian), pp. 358–379. New York: Wiley.
- Rejeski, W.J. and Thompson, A. (1993). Historical and conceptual roots of exercise psychology. In *Exercise Psychology: The Influence of Physical Exercise on Psychological Processes* (edited by P. Seragianian), pp. 3–35. New York: Wiley.
- Rogers, E.M. (1995). *Diffusion of Innovations*, 4th edn. New York: Free Press.
- Royak-Schaler, R. and Feldman, R.H.L. (1984). Health behaviors of psychotherapists. *Journal of Clinical Psychology*, **40**, 705–710.
- Sacks, H. (1992). *Lectures on Conversation* (edited by G. Jefferson, Vols 1 & 2). Oxford: Blackwell.
- Seedhouse, D. (1998). Mental health promotion: Problems and possibilities. *International Journal of Mental Health Promotion*, **1**, 5–14.
- Sparkes, A. (1998). Validity in qualitative inquiry and the problem of criteria: Implications for sport psychology. *The Sport Psychologist*, **12**, 363–386.
- Stake, R.E. (1994). Case studies. In *Handbook of Qualitative Research* (edited by N.K. Denzin and Y.S. Lincoln), pp. 273–285. Thousand Oaks, CA: Sage.
- Strauss, A. and Corbin, J. (1994). Grounded theory methodology: An overview. In *Handbook of Qualitative Research* (edited by N.K. Denzin and Y.S. Lincoln), pp. 236–247. Thousand Oaks, CA: Sage.
- Strean, W.B. (1998). Possibilities for qualitative research in sport psychology. *The Sport Psychologist*, **12**, 333–345.
- Tkachuk, G.A. and Martin, G.L. (1999). Exercise therapy for patients with psychiatric disorders: Research and clinical implications. *Professional Psychology: Research and Practice*, **30**, 275–282.
- Tudor, K. (1996). *Mental Health Promotion: Paradigms and Practice*. London: Routledge.
- Van Maanen, J. (1988). *Tales of the Field: On Writing Ethnography*. Chicago, IL: University of Chicago Press.
- Wolcott, H. (1990). On seeking – and rejecting – validity in qualitative research. In *Qualitative Inquiry in Education: The Continuing Debate* (edited by E.W. Eisner and A. Peshkin), pp. 121–152. Newbury Park, CA: Sage.
- Wolcott, H. (1994). *Transforming Qualitative Data*. London: Sage.
- Yardley, L. (1999). Understanding embodied experience. In *Qualitative Health Psychology: Theories and Methods* (edited by M. Murray and K. Chamberlain), pp. 31–46. London: Sage.
- Ziebland, S., Graham, A. and McPherson, A. (1998). Concerns and cautions about prescribing and deregulating emergency contraception: A qualitative study of GPs using telephone interviews. *Family Practice*, **15**, 449–456.