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BENEFITS OF EXERCISE ON PRESCRIPTION PROGRAMME AS PART OF OCCUPATIONAL HEALTH SERVICES

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Abstract
Musculoskeletal disorders and depression are two leading causes of sickness absence in the United Kingdom. This can be personal distress for employees and very costly to organizations. The benefits of exercise for treating these health problems are well-executed. This has led to exercise on prescription programmes being developed in many health settings. The aim of this project was to explore the potential benefits of providing an exercise for prescription intervention as part of an occupational health service provided by the North London NHS Foundation Trust. Over a period of 12 months, 34 staff members were referred to the programme. Nearly half of the staff members (n=16) attended the exercise programme because of the referral. Ten staff members completed all eight sessions offered and six staff members completed on average four sessions of the exercise programme. Staff members who completed all eight sessions reported beneficial effects on both their physical and psychological wellbeing which contributed to a positive impact on their work performance and attendance. All staff members who completed the exercise programme stated that they would recommend it to other staff members.

INTRODUCTION

Musculoskeletal disorders and depression are two of the leading causes of sickness absence in the United Kingdom (Chetty, 2010). In addition to the personal distress that this may cause the employee, musculoskeletal disorders account for approximately 116 million lost days of productivity loss at a direct cost of £1632 million, whereas depression is estimated to cause 110 million lost days at a direct cost of £370 million (Tyrovolas et al., 2020). Exercise on prescription programmes have been developed to treat musculoskeletal and depressive disorders. The benefits of physical activity on physical and psychological health problems, including back pain, stress, and depression, are well documented (Paluska & Schwenk, 2000). The exercise capacity does not need to be overly strenuous because the benefits of mild aerobic exercise have been found to be beneficial for both musculoskeletal and psychological health (Baker et al., 2010). These programmes are widely used in primary care settings; however, there is no documented evidence of their use in occupational health settings. The Boorman Review (2009) recommended that the NHS use wider public health initiatives to actively improve the health and wellbeing-being of staff members and that these should be central to the work of the organization (Boorman, 2009). In addition, the evidence recommends that the organization should provide various approaches to promote the physical and mental wellbeing of members of staff exposed to workplace ill-health (Chetty, 2020). The aim

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of this project was to explore the potential health benefits of providing an exercise on prescription programme to staff members employed by a North London NHS Foundation Trust.

MATERIAL AND METHODS

Members of staff were referred to the exercise on prescription programme by a clinician from the occupational health department. The programme was initially developed to support members of staff that were on sick leave to form part of the wider rehabilitation programme that is managed by the occupational health department; however, in its early stages, it was decided that the programme should be broadened to include members of staff with musculoskeletal problems and/or depression. An initial assessment was carried out at the occupational health department, which assessed the participants' fitness to participate and their motivation to increase physical activity. Members of staff who were referred to the programme were offered eight exercise sessions with a fitness instructor at the onsite gym. The sessions occurred between 2.00 p.m. and 3.00 p.m. every Wednesday for 12 months. Members of staff who completed all eight sessions of the programme were reassessed regarding their motivation to increase their physical activity. They also completed an outcome questionnaire regarding physical measures, benefits of the programme, intention to continue exercising, ways to improve the programme and whether they would recommend the programme to others. This project was classified as a service improvement initiative; therefore, ethical approval was not required (Health Research Authority, 2017).

RESULTS

Demographic characteristics

Of the 34 staff members referred to in the programme, 16 (47%) attended, of which 10 (63%) completed the full programme of eight sessions, and 6 (37%) did not complete the programme; however, there was an average attendance of four sessions. Of the 10 staff members who attended all eight sessions, six were female and four were male, with a mean age of 46 years. Most members of staff were nurses (40%) and administrators (40%). Three worked in theaters and the rest were in other departments within the hospital. Most staff members (80%) were referred for physical health problems. Table 1 depicts the characteristics of the staff members who completed the programme. Of the six staff members who did not complete the full programme of eight sessions, five were female and one was male, with a mean age of 41 years. Half of the staff members (50%) worked as administrators, and the rest were nurses. They were located in six different departments within the hospital. Table 2 depicts the characteristics of staff members who did not complete all eight sessions.

Table 1: Characteristics of staff who completed the programme.

Participant	Gender	Age	Work Group	Department	Reason
1	Male	41	Administrator	Finance	Knee Pain
2	Male	39	Health care Scientist	Hematology	Hip Injury
3	Male	36	Nurse	Theaters	Neck Pain
4	Male	36	Administrator	Hemophilia	Back Pain
5	Female	57	Nurse	Theaters	Knee Pain
6	Female	53	Administrator	Admissions	Depression
7	Female	40	HealthCare Scientist	Theaters	Depression
8	Female	52	Nurse	Renal	Knee Pain
9	Female	52	Nurse	ITU	Back Pain
10	Female	50	Administrator	HaWC	Back Pain

Table 2: Characteristics of staff who did not complete the programme

Participant	Gender	Age	Work Group	Department	Reason
1	Male	28	Administrator	Pharmacy	Back Pain
2	Female	33	Administrator	Workforce	Depression
3	Female	44	Administrator	Oncology	Depression
4	Female	36	Nurse	Nephrology	Back Pain
5	Female	57	Nurse	Neurology	Back Pain
6	Female	48	Nurse	PPU	Back Pain

Benefits of the scheme

Members of staff reported several personal benefits from taking part in the exercise programme: most commonly an improvement in their physical injury (50%) and an increase in their physical activity (33%). Table 3 presents the personal benefits described by staff members who completed the exercise on prescription programme. Members of staff also reported several work benefits, with 43% stating that they had more strength to do their job and were able to perform their job with less pain, while 29% stated that their attendance at work had improved as a consequence of taking part in the programme. Table 4 shows the work benefits described by members of staff completing the exercise on prescription programme

Table 3: Personal benefits reported by staff members

Personal Benefit	**Number of Respondents = 10**
Improvement in physical injury	5 (50%)
Increasing physical activity	3 (33%)
More energy	2 (20%)
More experience of gym structure	2 (20%)
Increased confidence	2 (20%)
Improved mental awareness	1 (10%)
Increased motivation to exercise	1 (10%)
Improved appetite	1 (10%)

Table 4: Work benefits reported by staff members

Work Benefit	**Number of Respondents = 7**
More strength	3 (43%)
Pain reduction	3 (43%)
Improved attendance	2 (29%)

Suggestions to improve the exercise on prescription programme

Members of staff were asked for suggestions on how the prescription exercise programme could be improved. The majority (71%) of the participants stated that it could be improved by altering the class time to later in the day. Table 5 summarizes the suggestions.

Table 5: Suggestions to improve the exercise on prescription programme

Suggested Improvements	**Number of Respondents = 7**
More convenient time	5 (71%)
More sessions	1(14%)
More time with a fitness instructor	1 (14%)

Recommendations of the exercise on prescription programme

Members of staff were asked whether they would recommend the exercise in the prescription programme to other staff members. Eight participants responded to this question, and all of them said that they would recommend the programme.

Staff who did not start or complete the exercise on prescription programme

A questionnaire was developed to identify the reasons why staff members did not start or complete the programme. Members of the staff were telephoned to obtain this information. Numerous attempts were made to

contact 24 staff members (18 that did not start and six that did not complete the programme), however data were only collected from five staff members (three that did not start the programme and two that did not complete it). The members of staff that did start/complete the programme were asked about the main reasons for not starting/completing the programme and if anything or anyone at work could have made it easier for them to start/complete the programme.

The main reasons for not attending

Members of staff were asked about the main reasons for not starting/completing the programme and to identify any barriers that may have prevented them from starting/completing the programme. Most staff members who responded (60%) stated that work commitments acted as a barrier to attendance. Work was perceived to be too busy by two members of staff and the said management did not agree with her attending the programme. Table 6 summarizes the reasons for not starting/completing the programme.

Table 6: Reasons for not starting/completing the programme

Reason	**Number of Respondents = 5**
Work commitments	3 (60%)
Changes in physical condition	1 (20%)
Left the hospital	1 (20%)

Reasons that may have made starting/completing the programme easier

Three of the five staff members responded to a question about whether anyone or anything at work would have helped make it easier for them to start/complete the programme. Two staff members said more flexibility with gym times would have helped. One member of the staff stated that their manager could have done more to make it easier for them to attend the programme. Table 7 summarizes the reasons for making starting/completing the programme easier.

Table 7: Reasons that make starting/completing the programme easier

Reason	**Number of Respondents = 3**
Flexibility during day and outside work hours	2 (66.7%)
Manager support	1 (33.3%)

CONCLUSION

The exercise on prescription programme was developed to improve the physical and psychological wellbeing of staff at a North London NHS Foundation Trust. It was set up as a pilot project to assess the potential benefits of the programme. In just over a year, 34 staff members showed an interest in the scheme, and nearly half attended some sessions of exercise, with 10 staff members completing all eight sessions offered. An additional six staff members completed four exercise sessions on average. The members of the staff that participated in the programme showed high motivation to participate and increase their physical activity, and this was still high after completion. Many physical benefits of taking part in the programme were reported, such as an improvement in an injury and having more energy. Moreover, they reported psychological benefits such as increased motivation, confidence, and mental awareness. All these benefits can have positive effects on work performance and attendance. Some staff members described an improvement in attendance and having more strength at work. Overall, the results clearly demonstrated that the exercise on prescription programme is acceptable to the staff and that they would recommend this programme to others. However, it also highlighted the need to increase accessibility due to the time barriers reported by some staff members. If this programme were to continue,

objective evaluation measures could be included to build upon our understanding of the potential benefits of this programme. These steps could focus on reductions in sickness absence and presenteeism.

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