Research and Workplace Innovation Program

The Wellness Institute "Fit For Work" project, formerly known as the "Hip Hinge" project

Project Advisory Committee Membership Updates (October 23, 2023)

The Project Advisory Group will comprise of:

- Shelley Sargent (Manager of Patient Care, HSC)
- Tom Pachal (Manager of Clinical Services, Wellness Institute)
- Kerry St. George (Physiotherapist, Wellness Institute)
- Katherine Cherepak (Research Assistant, Chronic Disease Innovation Center)
- Karri-Ann Jarvis (Director, HR, SOGH)
- Christopher Brown (Occupational Health Nurse, WRHA)
- Kim Tapawan taking over for Claudette Zinko (Musculoskeletal Injury Prevention Specialist, WRHA)
- Richard Ioculano taking over for Sylvia Horvath (Manager of Employee Safety and Injury Prevention, WRHA)
- Gayle Hryshko (Interim Regional Director, Occupational and Environmental Safety and Health, WRHA)
- Bernice Irvine (Manager, Occupational Health and Disability Management, WRHA)
- Margaret Temple (Disability Management Claims Coordinator, WRHA)
- Michael Boileau (Safe Work Expert, Worker's Compensation Board)

Final Report on Project Activities (October 23, 2023)

Seven Oaks General Hospital and The Wellness Institute at Seven Oaks General Hospital acknowledge the financial support of The Workers Compensation Board of Manitoba through the Research and Workplace Innovation Program in the preparation of this Project. However, the content of the report is the sole responsibility of Seven Oaks General Hospital and The Wellness Institute at Seven Oaks General Hospital and the views expressed in it are those of the authors.

1. Executive Summary

The Wellness Institute and Seven Oaks Hospital (SOGH) collaborated on the "*Fit For Work*" project to improve staff knowledge, ability and confidence in performing the core fitness competencies required for safe patient handling and back injury prevention. This report includes a summary of the project and findings.

2. Project Overview

This project involved the delivery of education and training sessions to SOGH staff, with the goal of workplace injury prevention. Education included review of provincial safe patient handling and back injury prevention guidelines and review of core fitness competencies required to comply with injury prevention standards. Training session included exercises to improve core, gluteal and quadricep strength, hip/knee mobility and hamstring flexibility. Training included the opportunity to provide feedback on functional movement performance with review of primary movement patterns. Outcomes included questionnaires on: low back pain/dysfunction; movement confidence; work injury rates and participant satisfaction with program. The project advised stakeholders of the benefits and challenges associated with implementation of a fitness program to support safe patient/material handling techniques, as outlined in the provincial guidelines for healthcare workers.

3. Work Completed

The following activities have been accomplished in this reporting period:

- Recruitment for participation ran from April – July 2023
- 56 total participants registered for the program
- 4 waves of education sessions completed
- 5 waves of exercise sessions completed
- Final project review with Project Advisory Group completed September 2023
- Analysis of collected data
- Knowledge transfer and information sharing content developed

4. Results and Evaluation

Participation:

- 56 total participants enrolled: 5 male (9%) / 51 female (91%)
- 25 participants completed 50% or greater of program: 1 male (4%) / 24 female (96%)
- 6 participants withdrew from program due to prior injuries (2), scheduling/time commitment (3), and loss of interest (1)
- 25 participants completed less than 50% of the program
- 12 participants enrolled in the program but did not attend any sessions
- If a participant attend session 1, it was a 68% chance they would finish the program
- If a participant did not attend session 1, it was an 80% chance they would not finish the program

Program:

Pre- and post-measurements for the program included the Quebec Back Pain Disability Scale (QBPDS), the Oswestry Disability Index (ODI), and the Movement Confidence Scale (MCS).

The results from the pre-program (Mean = 15.8, Standard Deviation = 14.1) and post-program (M = 11.6, SD = 10.3) QBPDS indicate that the program intervention resulted in a statistically insignificant improvement in back pain, t (24) = 1.52, p = .07, with a mean improvement of 4.24 points.

The results from the pre-program (M = 13.3, SD = 13) and post-program (M = 11.1, SD = 11.5) ODI indicate that the program intervention resulted in a statistically insignificant improvement in back pain, t (25) = 1.54, p = .07, with a mean improvement of 2.2 points.

The results from the pre-program (M = 37.8, SD = 8.8) and post-program (M = 39, SD = 8.9) MCS indicate that the program intervention resulted in a statistically insignificant improvement in back pain, t (25) = -0.98, p = .16, with a mean improvement of 1.2 points.

- 80% of participants that completed the program reported “Satisfied” or “Very Satisfied” with the quality of the program
- 76% of participants reported enhanced understanding of provincial/regional safe handling practices
- 36% found the education component very useful or extremely useful
- 96% found the training sessions very useful or extremely useful
- 84% reported a significant increase in knowledge, skills, and confidence through the program
- 68% reported significant valuable lifestyle changes

There were 25 participants who completed less than 50% of the program, which is insufficient attendance for comparable data. From this subgroup, barriers to program participation were noted as: time constraints/inability to leave work (80%), illness (13%), and previous injury (7%).

12-Month Follow Up:

The 12-month follow up and analysis will be completed between May and July of 2024 as in relation to each participants program completion date. Further data comparisons will be conducted at that time.

5. Proposed Recommendations:

The program was successful in providing valuable insight into an injury reduction program for health care workers. Although the 12-month follow up data cannot be collected until next year, some insights into a successful program and future recommendations can be drawn. Despite the quantitative data showing insignificant improvements, the qualitative data collected had overwhelmingly positive results. This allows further insights into the limitations of the program and possible factors leading to the lack of statistical significance. The major barrier to the program was highlighted as the inability to commit to the time the program was offered. This

was a highlighted issue when planning the program as there is much difficulty in planning program slots for healthcare workers due to shift work, varying break times, unit coverage, and overtime. This barrier lead to inconsistent participation and a reduced sample size for the program, likely contributing to the overall effect sizes and significance. The majority of participants that completed the program reported that a similar program would be beneficial if offered more frequently and for longer duration.

Based upon qualitative data collect with this project, it is recommended that future programs:

(1) offer sessions at different times throughout the day

(2) increase overall frequency and length (>4 weeks duration and/or >2 sessions/week)

(3) increased flexibility in participant schedule allowing participants to join other classes if unable to attend their scheduled class.

(4) participants are provided with take home materials to further education and provide instruction to maintain routine after program completion

(5) pre- and post-fitness assessment completed to make objective changes in strength, flexibility, and body composition