

Enhancing Bariatric Surgery Outcomes: The Role of Physiotherapy

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Obesity is a complex, chronic disease with a substantial impact on quality of life and healthcare systems worldwide. While bariatric surgery is an effective treatment for severe obesity, surgery alone does not address the physiological and behavioural factors needed for long-term success.

During my MSc in Obesity and Weight Management at the University of South Wales, I explored how physiotherapy can be integrated into the bariatric surgery pathway to optimise patient outcomes. This opportunity was made possible through the Tertiary Education Scholarship Scheme (TESS).

My dissertation, titled "*Physiotherapy Interventions for Adults Undergoing Bariatric Surgery Across the Pre- and Post-Operative Phases*," was a narrative review conducted in line with PRISMA guidelines. It analysed 35 randomised controlled trials (RCTs) involving 2,884 patients to determine the clinical utility of physiotherapy before, during, and after surgery.

The findings revealed that physiotherapy provides important benefits beyond surgery alone:

- **Prehabilitation:** Interventions prior to surgery improve muscular and cardiorespiratory reserves, creating a “physiological buffer” that helps patients better tolerate surgical stress.
- **Acute recovery:** Early mobilisation and structured chest physiotherapy immediately following surgery were found to reduce postoperative pain and respiratory complications.
- **Long-term body composition:** While exercise did not significantly increase total weight loss compared to surgery alone in the early stages, it was vital for improving the quality of weight loss. Resistance training helped attenuate the loss of lean muscle mass and bone mineral density that often follows bariatric surgery.
- **Weight maintenance:** Supervised programmes were superior to simple advice in improving cardiorespiratory fitness and preventing long-term weight regain.

This review also explored emerging modalities. For instance, Transcutaneous Electrical Nerve Stimulation (TENS) was effective for acute postoperative pain management, while Percutaneous Electrostimulation (PENS) of the pectoral muscles combined with targeted training may help address aesthetic concerns like breast ptosis (sagging). Although these approaches require further large-scale research, they highlight the potential for more individualised, comprehensive care.

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