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Introduction: Although literature generally supportive of PFMT for POP, some studies show mixed results. Knowledge as to which factors could predict responders to conservative treatment would be helpful.

Aim of Study: Identify factors that predict treatment success in women receiving PFMT for POP.

Study Design: Secondary analysis from 2 RCT

Methods: Secondary analysis on data from Pelvic Floor Muscle Training and Pessary treatment Study (POPPS) project.
• 2 RCT, one comparing PFMT to pessary treatment and the second comparing PFMT to watchful waiting.
  • Current study both PFMT arms were included.
  • Women recruited from 20 Dutch primary care practices by postal screening with 5 questions related to prolapse-related symptoms.
    – If responded yes to at least one, invited for Interview & exam.
Inclusion criteria: Women ≥55 yo who had prolapse identified from physical exam and who attended at least one PFMT session.
Exclusion criteria: Current POP treatment of pessary/PFMT/surgery or prior treatment in the last year, current treatment for gynecological or urological disorder or malignancy, severe/terminal illness, inability to visit GP’s office, cognitive impairment or inability to understand/complete questionnaire.

Intervention:
• 1-1 PFMT with pelvic floor PT and prescribed home program
  – Home program: 3-5X/wk, 2-3X/day and progressed at PT discretion.
  – Education, assessment of PFM with feedback and ES PRN
Educate in stress strategy & lifestyle education and toileting advice.

**Outcome measurements:**
**Questionnaire:** Validated PFDI-20
**Examination:** POP-Q, and PFM function assessed following ICS method.

**Selection of Candidate Predictors:** Lit review and questioning of 10 experts in urogynecology and PFMT regarding potential factors for success/failure and then assessed data bank for availability of identified factors.

**Statistical methods:**
- Univariable and multivariable logistic regression analyses to identify predictors of treatment success.
- Predictors investigated for multicollinearity using correlation matrix.
  - Most significant predictors identified with multivariable analysis. –Odds ratios determined for each predictor.

**Predictors:** Lit review and expert responses yielded 47 candidate predictors, with 25 available in database and no multicollinearity noted.

(Appendixes 1 and 2). Available Predictors available in Database and those not available. and causes of chronic pelvic floor stress.

**Final question to determine if treatment successful:** “Compared to the start of the study, are your symptoms the same, better, worse? Successful if response was “better”; unsuccessful if response “same” or “worse.”

**Results:** 209 women invited; 172 women completed final questioning. Number of treatment sessions between 3-35, with average of 9 sessions

**Table 1** Baseline characteristics no different between women lost to follow-up and those included in study.

**Table 2:** Distribution of predictors in relation to treatment success or failure with P values from univariable logistic regression analyses.
- Characteristics with $p \geq .05$ in relation to success include 1) mean age ($p=.016$ and 2) any indicator of obstetric trauma ($p=.003$)
- Characteristics with $p \geq .05$ in relation to failure: prolapse at or beyond the hymen ($p=.027$)
Table 3: Final multivariable logistic regression model for the 2 variables identified in Table 2
• P value: age (p=.04) and obstetric trauma. (p=.02)
• Odds ratio: Any obstetric trauma 4.39 and Age: .94 per year
• These 2 factors only accounted for 11.7% of variance between treatment success and failure.

Final question to determine if treatment successful: successful: 94/172 (55%), failure: 78/172 (45%).

Interpretation:
• Odds of successful treatment if at least one obstetric trauma indicators 4.4 times than those without, suggesting potentially reversibility to the trauma
  – Authors do not rule out the possibility of a type 1 error.
• Odds of treatment success decreased with age, odds ratio of .94 per year.

Discussion: Two independent factors identified as predictors of successful treatment of POP with PFMT: younger age and history of any obstetric trauma.

Strengths: Large study population, predictors based on expert opinion, and patient-centered definition of treatment success.

Weaknesses:
• Not all predictors available from data previously collected and some unable to be converted into single predictor variable.
• Baseline median POPDI-6 only 12.5/100, suggesting very mild symptoms.
• Choice of digital muscle assessment simplistic and did not assess strength.
• No specifics regarding actual PFMT and no tracking of patient compliance.
• Genetic factors only factored under “first-degree relative with prolapse”.

Summary: Two factors identified as independent predictors of successful treatment for POP with PFMT and general lifestyle advice. However, only accounts for 11.7% of the variances in outcome measures, thus appears that some untested variable/variables are important.
Discussion Questions:
• If you were consulted as an expert, which variables would you have chosen as factors that would predict success or failure of conservative tx?
• In your clinical experience, do find younger women more responsive than older women when treating prolapse?
• Seeing that women with birth trauma history responding better, do you think if intervention was provided in the first year post-partum that the prolapse would be less likely to occur or become symptomatic > 55 yrs?
• In addition to specific PFMT and lifestyle recommendations, do you include any other specific treatments with your POP patients?
• Do you find women with GJL more challenging to treat?