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Exercise, Coaching, & Community: Improvements in Menopause Symptoms in Real-World Settings

Results from the P.R.E.S.S. Study

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Introduction

Most women experience menopause between ages 45 and 54, and they may experience a variety of symptoms during perimenopause, menopause, and early postmenopause that impact quality of life (Thurston, 2025). This is also a time when health risk factors shift significantly, including increased risk of heart disease, osteoporosis, sarcopenia, metabolic dysfunction, and dementia. Perimenopause and early postmenopause, when estrogen levels are declining, is an especially critical time, and targeted lifestyle changes during this window can have an enormous impact on future health (Speer & Northey 2024).

Despite the known health and quality of life issues that accompany the menopause transition and the potential of lifestyle interventions to improve them, many women still struggle to find adequate support to implement changes (Nieroda, 2024). Women report lacking knowledge, access to high-quality information, support from health professionals, and specific guidance on how to care for themselves during the menopausal transition.

The evidence is clear that specific exercise interventions including resistance training (Teixeira, 2023) and high-intensity interval training (Dupuit, 2020) can improve symptoms and health risks for midlife women. There is also evidence that social support is an effective tool to increase such behaviors (Tong, 2018) and to improve menopause-related symptoms (Polat 2021). However, it remains unknown whether these interventions are effective outside of controlled study environments.

Midlife women frequently use a variety of different strategies to manage symptoms in the context of often busy lives while managing competing demands of family responsibilities, social lives, and careers. Strict protocols that work in research may not be realistic in this context. To our knowledge, there is currently no published literature examining multi-component menopause lifestyle interventions in real-world settings.

The Peloton/Respin Exercise & Symptoms Study (P.R.E.S.S.) was designed to fill this gap. The purpose of this study was to determine the acceptability and effectiveness of an online exercise, social support, and education intervention delivering menopause-specific, evidence-based content and programming in a real-world setting.

Methods

Study Design & Population

This pragmatic study used a quasi-experimental pretest-posttest design. Participants were recruited via direct email and social media posts from Peloton's accounts. We enrolled women aged 40-65 who self-identified as experiencing symptoms of perimenopause or menopause and who were existing users of Peloton's exercise programming. The program's Peloton exercise content, including curated class lists and new classes created using Respin's evidence-based guidelines, was novel, and thus no users were been exposed to it prior to the study start.

Defining the population in this way reflects the way people actually engage with health programs in the course of their normal lives, based on their self-identified symptoms and tools that are available and familiar.

Intervention

The intervention evaluated in this study consisted of 8 weeks of access to curated exercise classes developed from evidence-based protocols, access to an online community space for program participants, educational content about menopause and lifestyle medicine, weekly opportunities for online live group coaching sessions with menopause expert coaches, and personalized recommendations for lifestyle changes based on current symptoms and health risks.

Exercise content included effort-based guidance and modifications, allowing participants of different levels to benefit. The exercise protocols were developed by evaluating scientific literature focused on symptoms and health risks common in menopause and with populations including midlife women. The modalities included full-body resistance training, high-intensity interval training, moderate-intensity cardiovascular exercise, and meditation/recovery practices. Participants received the recommendation to aim for 2-3 high-intensity sessions and 2-3 strength training sessions per week, a daily recovery practice, and moderate-intensity sessions as an additional workout or instead of a high-intensity workout depending on capacity and energy each week. The suggested classes included a variety of equipment including stationary bikes, treadmills, rowing machines, free weights, and resistance bands, thus providing options for users with different skill and fitness levels as well as equipment access.

Content was delivered via connected exercise devices (Peloton equipment), mobile apps (Respin Health and Peloton), and a website (Respin Health). Participants were able to access the content at any time and at any cadence during the 8-week study period; they were instructed to use the program elements as they would in their normal lives.

Data Collection

Data collection was via online survey. The primary endpoint was menopause symptom burden, as measured by the Menopause Quality of Life Scale (MENQOL) (Sydora, 2016). This tool is widely used in both research and clinical practice and is used to describe how bothered a person is by menopause symptoms. Each of 29 symptoms is scored from 1 (symptom is not present) to 8 (symptom is extremely bothersome). An overall MENQOL score, as well as a score for each of four domains (vasomotor, psychosocial, physical, and sexual), is calculated. We also collected data on six additional symptoms, based on commonly reported symptoms in Respin Health's user base and the clinical experience of our medical team, and data on overall activity and stress level.

Statistical Analysis

Descriptive statistics were calculated to analyze the participant demographics. Descriptive statistics and bivariate tests were used to evaluate the change in symptom scores and program engagement over 60 days.

Because the differences between paired symptom score observations were not normally distributed ($p < 0.05$ in Shapiro–Wilk tests), we used Wilcoxon signed-rank tests and Cliff's delta to reflect these measures. To control for Type I error due to multiple comparisons, p-values for change in symptoms were adjusted using the Bonferroni method.

All analyses were carried out using R Studio Version 2025.09.2+418.

Ethical Approval

This study protocol was approved by BRANY IRB, an independent ethical review board. All participants provided informed consent prior to their enrollment in the study.

Results

Participant Characteristics

Following an initial recruitment post and email from Peloton, 1000 eligible women originally consented to participate in the study. Of these, 75.7% (n=757) engaged with the program, defined as activating their account in the Respin community. 283 participants completed a check-in survey at 30 days, and 267 (35.3% of engaged users) completed the final symptom survey at 60 days.

The mean age of participants who completed the study was 51 years (range 40-65). 42.7% were on Menopause Hormone Therapy (MHT). 31.1% were postmenopause, 41.6% perimenopause, and 9% post-hysterectomy (Table 1). The sample was 77.5% white, reflecting a less diverse profile than Respin Health's typical user base. Overall, there were no significant differences in demographics between those who completed the study and those who enrolled but did not complete.

Table 1. Participant characteristics.

	Completer	**Non-Completer**	**p-Value**
Age	50.99 (mean)	50.38 (mean)	0.112 (t-test)
BMI	26.74 (mean)	27.23 (mean)	0.151 (t-test)
MHT			0.195 (chi-square)

yes	114 (42.70%)	293 (39.97%)	
Decided against	41 (15.36%)	134 (18.28%)	
Thinking about	99 (37.01%)	287 (39.15%)	
Used to	13 (4.87%)	19 (2.59%)	
Menopause status			0.3306 (chi-square)
Peri	111 (41.6%)	344 (46.9%)	
Post	83 (31.1%)	185 (25.2%)	
Hysterectomy	24 (9.0%)	64 (8.7%)	
On BC/unknown	32 (12.0%)	101 (13.8%)	
Unsure	17 (6.4%)	39 (5.3%)	
Race/Ethnicity			0.2335 (chi-square)
White	207 (77.5%)	600 (81.9%)	
Black	27 (10.1%)	43 (5.9%)	
Hispanic/Latino	17 (6.4%)	48 (6.5%)	
Asian	6 (2.2%)	17 (2.3%)	
Other	10 (3.7%)	25 (3.4%)	

However, participants who completed the study had significantly lower MENQOL scores, reflecting a lower symptom burden, than those who did not complete (Table 2). This suggests that women with more bothersome symptoms may need additional support to facilitate participation.

Table 2. Baseline symptom severity.

Baseline Scores	Completer Mean	Non-Completer Mean	p-value
Overall MENQOL	3.41	3.62	0.008*
Vasomotor	2.94	3.18	0.047*
Psychosocial	3.61	3.88	0.010
Physical	3.63	3.86	0.009*
Sexual	3.45	3.57	0.431

*Note: * denotes finding significicant at p<.05. Paired t-test (for normally distributed); Wilcoxon signed-rank test (non-parametric for non-normally distributed). Bonferroni method applied to adjust for multiple comparisons.*

Participants also identified their top priority at baseline from a set of ten common concerns (Table 3). For both groups, body composition changes was the most common priority.

Table 3. Baseline top priority.

	Completer	Non-Completer
Top Priority		
Body Composition Changes	118 (44.2%)	297 (40.5%)

Longevity	29 (10.9%)	56 (7.6%)
Anxiety & Mood	26 (9.7%)	79 (10.8%)
Energy	24 (9.0%)	104 (14.2%)
Sleep	23 (8.6%)	83 (11.3%)
Mental Clarity	21 (7.9%)	36 (4.9%)
Pain	11 (4.1%)	20 (2.7%)
Hot Flashes & Sweating	8 (3.0%)	22 (3.0%)
Sexual Health	7 (2.6%)	32 (4.4%)
Dryness	0 (0.0%)	4 (0.5%)

Sixty-Day Change in Symptom Scores

Compared to baseline, average overall and domain-specific MENQOL scores improved significantly at 60 days (Table 4). 84.3% of participants reported directional improvement in overall MENQOL score, with 49.8% meeting the threshold defined as clinically significant as defined in the literature (Schultz 2024). Additionally, significant improvements were seen in all four symptom domains.

Table 4: MENQOL domain scores at 60 days

	Mean Δ	**SD Δ**	**Test statistic**	P value (adjusted)	**% with directional improvement (clinical improvement)**
Overall MENQOL	-0.9742	1.027	2888.0	0.000**	84.3% (49.8%)
Vasomotor	-0.8552	1.603	4064.5	0.000**	61.4% (19.5%)
Psychosocial	-0.9187	1.263	4274.5	0.000**	76.0% (47.2%)
Physical	-0.9331	1.182	4634.5	0.000**	76.4% (51.7%)
Sexual	-1.1898	1.881	5357.0	0.000**	57.7% (45.3%)

Note: Wilcoxon signed-rank test (non-parametric for non-normally distributed). Bonferroni method applied to adjust for multiple comparisons. Clinically significant thresholds (Schultz, 2024): overall score reduction of ≥ 0.9 points; Vasomotor 2.0, Psychosocial 0.9, Physical 0.8, Sexual 1.2.

Improvement in individual symptoms was calculated based on those who reported the symptom was present at baseline (item score >1); therefore the sample size for each symptom is different. All 35 symptoms improved on average, and all 35 were statistically significant (Table 5). The symptoms with the greatest percentage improvement were sweating (57.2% average improvement), worsening PMS (50.9% average improvement), palpitations (47.9% average improvement), and decrease in sexual desire (46.7% average improvement).

Table 5. % Improvement for participants with each symptom present at baseline

	N with symptom at baseline	% with symptom at baseline	Mean Δ	P-value	Mean % improvement
MENQOL item					
1 Hot flashes	127	47.6%	-2.024	<0.0001**	40.7%
2 Night sweats	159	59.6%	-1.987	<0.0001**	38.6%
3 Sweating	105	39.3%	-2.943	<0.0001**	57.2%
4 Dissatisfaction with my personal life	139	52.1%	-1.971	<0.0001**	40.4%
5 Feeling nervous or anxious	200	74.9%	-1.825	<0.0001**	33.5%
6 Poor memory	205	76.8%	-2.039	<0.0001**	38.7%
7 Accomplishing less	172	64.4%	-2.012	<0.0001**	38.7%
8 Feeling down, depressed, or blue	133	48.9%	-1.617	<0.0001**	33.7%
9 Being impatient with others	204	76.4%	-1.637	<0.0001**	28.5%
10 Feelings of wanting to be alone	151	56.5%	-1.417	<0.0001**	29.2%
11 Flatulence or gas pains	124	46.4%	-1.790	<0.0001**	37.7%
12 Aching in muscles and joints	202	75.7%	-1.881	<0.0001**	33.2%
13 Feeling tired/worn out	227	85%	-1.546	<0.0001**	26.4%
14 Difficulty sleeping	195	73%	-1.713	<0.0001**	29.1%
15 Aches in back of neck/head	136	50.9%	-1.846	<0.0001**	35.4%
16 Decrease in physical strength	133	49.8%	-2.083	<0.0001**	39.3%
17 Decrease in stamina	144	53.9%	-2.035	<0.0001**	38.6%
18 Lack of energy	208	77.9%	-1.861	<0.0001**	33.1%
19 Dry skin	126	47.2%	-1.333	<0.0001**	22.9%
20 Weight gain	206	77.2%	-2.699	<0.0001**	40.8%

21 Increased facial hair	134	50.2%	-2.343	<0.0001**	45.3%
22 Changes in appearance, texture, or tone of skin	155	58.1%	-2.471	<0.0001**	45.0%
23 Feeling bloated	178	66.7%	-2.433	<0.0001**	41.5%
24 Low backache	139	52.1%	-2.151	<0.0001**	40.9%
25 Frequent urination	143	53.6%	-2.266	<0.0001**	43.7%
26 Involuntary urination when laughing/coughing	107	40.1%	-1.617	<0.0001**	32.4%
27 Decrease in sexual desire	157	58.8%	-2.828	<0.0001**	46.7%
28 Vaginal dryness	113	42.3%	-2.796	<0.0001**	46.2%
29 Avoiding intimacy	143	53.6%	-2.273	<0.0001**	38.7%
Additional symptoms					
Palpitations	98	36.7%	-2.051	<0.0001**	47.9%
Hair loss	130	48.7%	-1.785	<0.0001**	31.5%
Dry eyes/mouth	118	44.2%	-2.000	<0.0001**	37.4%
Dizziness	88	33.0%	-2.034	<0.0001**	45.4%
Worsening PMS	55	20.6%	-2.491	<0.0001**	50.9%
Brain fog	214	80.1%	-1.958	<0.0001**	33.6%

*Note: * * denotes finding is significant at p<.001. Wilcoxon signed-rank test used for non-normally distributed data. Bonferroni correction applied for significance level for multiple comparisons.*

Additional Outcomes

Participants also reported less average daily time sitting (mean decrease 28 minutes) and improved sleep quality (Jenkins Sleep Scale score average decrase of 1.8 points). There were no statistically significant changes in self-reported active minutes per week or perceived stress.

Discussion

This study found that menopause symptom burden decreased significantly after 60 days of participation in an evidence-based, multi-component menopause support program focused on

exercise and social support. Symptoms also improved across domains, suggesting a global, rather than specific, benefit.

This finding is consistent with other studies demonstrating the efficacy of menopause-specific digital care in improving symptoms (Jahnke et al. 2025, Duffecy et al, 2025). However, ours is the first to demonstrate the power of specific, evidence-based exercise classes delivered remotely and flexibly to improve quality of life in this demographic.

Leveraging an existing tools such as Peloton to target menopause-related symptom and health needs is a powerful strategy because it does not require women who are already overwhelmed to begin a completely new routine or activity. By offering both evidence-backed information and the tools to implement it within an existing routine (i.e., Peloton exercise classes), interventions like this are likely to appeal to women. This approach is also consistent with the message that staying healthy in midlife requires small adjustments, not dramatic changes.

This study's positive results may also reflect the program's flexibility: exercise classes, coaching sessions, and web resources were available on-demand as well as live, and there was no mandatory attendance. Women with different learning styles, levels, and schedules were all able to benefit.

Because the proven benefits of exercise extend beyond symptom improvement, programs such as this one have the potential to result in long-term positive health outcomes. Symptom improvement may function as the gateway to improve cardiovascular health, bone health, and brain health. When women feel better, they are more likely to continue to engage in the target behaviors and therefore to reap the long-term benefits.

It is also important to consider that symptom improvement and quality of life are inherently subjective measures. This study did not seek to establish objective improvements in metrics such as body weight or number of hot flashes. Instead, we chose to focus on how bothered women were by their symptoms. While some of the symptom improvement, such as energy, anxiety, strength, and stamina, can plausibly be explained by participation in 60 days of exercise programming, others, such as changes in facial hair or dry eyes, are less expected, and may reflect broader shifts in mindset. However, whether the improvements we found were a result of changed attitudes or perceptions, physiological response to exercise and other lifestyle changes, or a combination, the key findings remain robust: the participants felt significantly better at the end of the program than they did at the beginning.

Limitations

This was a quasi-experimental study without a control group, so it is possible that some of the improvement seen is unrelated to the intervention. Menopause symptoms typically fluctuate over time, so some variability in both directions is expected.

We did not measure engagement with individual program elements such as specific classes completed. It is therefore impossible to isolate whether one component of this intervention was more active than another, or whether intent to participate itself improved symptoms (placebo effect). However, as symptoms are by their nature subjective, symptom improvement is the goal, and risk is minimal, this effect is actually desirable: the decision to invest in one's self is itself can drive symptom improvement, regardless of observed behaviors.

It's also notable that though over 1,000 women originally indicated intent to participate, just a fraction completed the 60-day intervention. This self-selection potentially introduces significant bias. However, this self-selection represents the realistic use of such programs outside of the research context, and suggests that women who choose such a program are likely to respond well to it. We found that women who completed the study had lower MENQOL scores than those who did not. This suggests that it may be more difficult for women with more severe symptoms to participate; future studies should examine barriers to participation for these women and test interventions to facilitate easier engagement.

Conclusion

As awareness of menopause increases both among midlife women and within the medical community, there is a clear need for evidence-based tools to manage symptoms, educate, and support women in this transition. This study adds to a growing body of evidence demonstrating how innovative lifestyle programs and tools can meet the needs of women who want to proactively manage their health.

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