Factors that affect engagement with physical activity for patients who have received radiotherapy as part of their gynaecological cancer treatment - A rapid review.

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Abstract:

Introduction: Gynaecological cancer survivors can suffer from acute and chronic treatment related side effects, including those resulting from radiotherapy. This can lead to low levels of engagement in physical activity and reduced quality of life. This literature review explores these patients' engagement with physical activity and identifies the factors that impact upon it.

Methods: Qualitative studies were identified via Medline, CINALH Complete and APA PsycInfo databases. A rapid review utilising a systematic approach was conducted. Studies incorporated were published in the last 10 years, peer reviewed, and included participants who were treated radically with radiotherapy.

Results: The search returned n=68 papers. After analysis and utilising the PRISMA flow chart, six studies were included in the review. Key themes included side effects, education, social influences, practical and personal factors, as well as prior physical activity engagement.

Conclusion: This literature review has identified side effects, education, social influences, practical and personal factors, as well as prior physical activity engagement as elements that interplay to shape individuals' attitudes and behaviours towards physical activity. Further studies are required to clarify the effect radiotherapy has on gynaecological cancer patients' engagement with physical activity.

Implications for practice: This review identified the need for health care professionals to receive an improved education surrounding information giving and advice for gynaecological cancer patients. Additionally, there is a lack of personcentred care provided, with a need for a tailored approach that recognises survivors' unique preferences, physical limitations, and readiness to engage with physical activity, which are essential for promoting sustained participation.

Key words:

Gynaecological cancer

Physical activity

Radiotherapy

Person-centred care

Survivorship care Quality of life

Introduction:

Gynaecological cancers encompass malignancies that form in the female reproductive system, including the cervix, ovaries, uterus, fallopian tubes, vulva, endometrium, and vagina. Whilst regularly categorised together, this patient group is often diverse in age, survival, and recurrence.[1] However, curative treatments frequently contain the same treatment modalities, including surgery, internal and external radiotherapy, and chemotherapy.[2] Pelvic radiotherapy results in acute and long-term toxicities, including fatigue, tissue fibrosis, urinary and faecal incontinence, and vaginal stenosis and dryness.[3] Side effects such as these can culminate in reduced physical activity (PA) levels as well as impaired physical and psychosocial ability, thereby decreasing quality of life (QoL).[4]

There is evidence to suggest however, that physical activity can assist the course of cancer recovery and survival.[5] A systematic literature review of gynaecological patients identified that exercise improves health-related outcomes which usually decline due to cancer and its treatment.[6] However, Fleming et al.[7] examined gynaecological cancer survivors' trajectories when engaging in PA and found just 20% maintained or increased their levels. This was mirrored in Jones et al.[8] literature review which identified PA levels in most ovarian cancer survivors are insufficient following diagnosis.

While it is clear many women within these patient groups are not engaging in PA recommendations, it is not evident why. Lin et al.[9] and Rose et al.[6] established that such interventions appear to be successful in improving levels of exercise and exercise capacity. However, as McGrath et al.[10] identified, to successfully apply PA interventions, an insight into the patient groups exercise engagement is required to sustain and maintain participation. Additionally, understanding gynaecological cancer survivors' engagement with PA can aid health professionals in tailoring their advice surrounding exercise.

This literature review explores gynaecological cancer survivors' experiences with PA both through their involvement with exercise interventions, and their engagement with PA as part of their typical lifestyle. Within this review, PA is defined as structured exercise or an activity that requires exertion outside of basic actions needed to complete everyday tasks.

Research question: What factors affect engagement with physical activity for patients who have received radiotherapy as part of their gynaecological cancer treatment?

Aim: To identify implications for practice through evaluating the factors that affect engagement with physical activity to meet the needs of gynaecological cancer patients. To identify implications for practice and future research in providing accessible and feasible exercise advice and support for gynaecological patients who have been treated with radiotherapy.

Method:

A rapid review utilising a systematic approach was undertaken utilising the search terms “cancer” AND “gynecologic* OR gynaecologic* OR cervi* OR endometri* OR ovar* or vagina*” AND “exercise OR physical therapy OR pelvic floor OR physical activity” AND “facilitator* OR acceptab* OR engagement OR barrier* OR compliance OR perception OR enabler* OR challenge* OR experience* OR attitude*” NOT “feasibility”. The term “feasibility” was excluded due to initial search results which generated multiple feasibility studies.

Table 1. Inclusion/Exclusion Criteria

Inclusion	**Exclusion**
Date <10 years	>10 years
Language - English	Languages other than English
Population - Radical gynaecological patients with radiotherapy as part of their treatment.	Gynaecological cancer survivors treated with palliative intent and without radiotherapy.
Exposure - Physical activity	
Outcome - Identifying and evaluating factors that affect engagement with physical activity.	Articles that discuss effectiveness of exercise interventions rather than focusing on engagement. Feasibility studies.
Peer reviewed articles	Non-peer reviewed articles, posters

The date range was set from January 2013 to December 2023 to access a larger pool of literature. This timeframe was selected due to radiotherapy advancements within this period, including the increased utilisation of volumetric arc therapy and verification software, thereby reducing adverse radiation induced toxicities.[11] The language was limited to English to minimise the chance of inaccurate or poor translations.

Gynaecological cancer survivors treated with radical intent radiotherapy were selected as part of the inclusion criteria, whereas patients treated with palliative intent and without radiotherapy were excluded. This was to ensure the studies focused on patients considered well enough to partake in PA as well as exploring the impact of radiotherapy on engagement.

Peer reviewed articles were utilised as they are generally accepted as research that has been assessed and critiqued to ensure validity and quality.[12] For the purposes of this review, non-peer reviewed articles and posters were excluded in the attempt to ensure only high-quality research with an in-depth level of information was utilised. However, it should be noted that while this decision was made, the peer review system is still subject to the bias of reviewers, as well as bias being present within the actual selection of articles for peer review.[13]

Papers utilising a quantitative methodology have been excluded from this review due to the research question focusing on outcomes associated with the factors that impact engagement with PA, rather than examining the effect of PA interventions.

The databases utilised within this literature review were Medline, CINALH Complete and APA PsycInfo. Data analysis was undertaken by initially screening titles generated from the search based on the inclusion/exclusion criterion. Duplicate titles were then removed, and the screened articles retrieved. The inclusion/exclusion criteria assisted in evaluating abstracts for eligibility. In addition to this, the abstracts were also assessed with the Critical Appraisal Skills Programme[14] (CASP) qualitative checklist to determine their validity and quality. This selection process is displayed within figure 1. The final articles included within the review additionally underwent an appraisal process using the CASP[14] checklist. Subsequently, thematic coding was utilised to identify themes.

All incorporated articles achieved ethical approval.

Results:

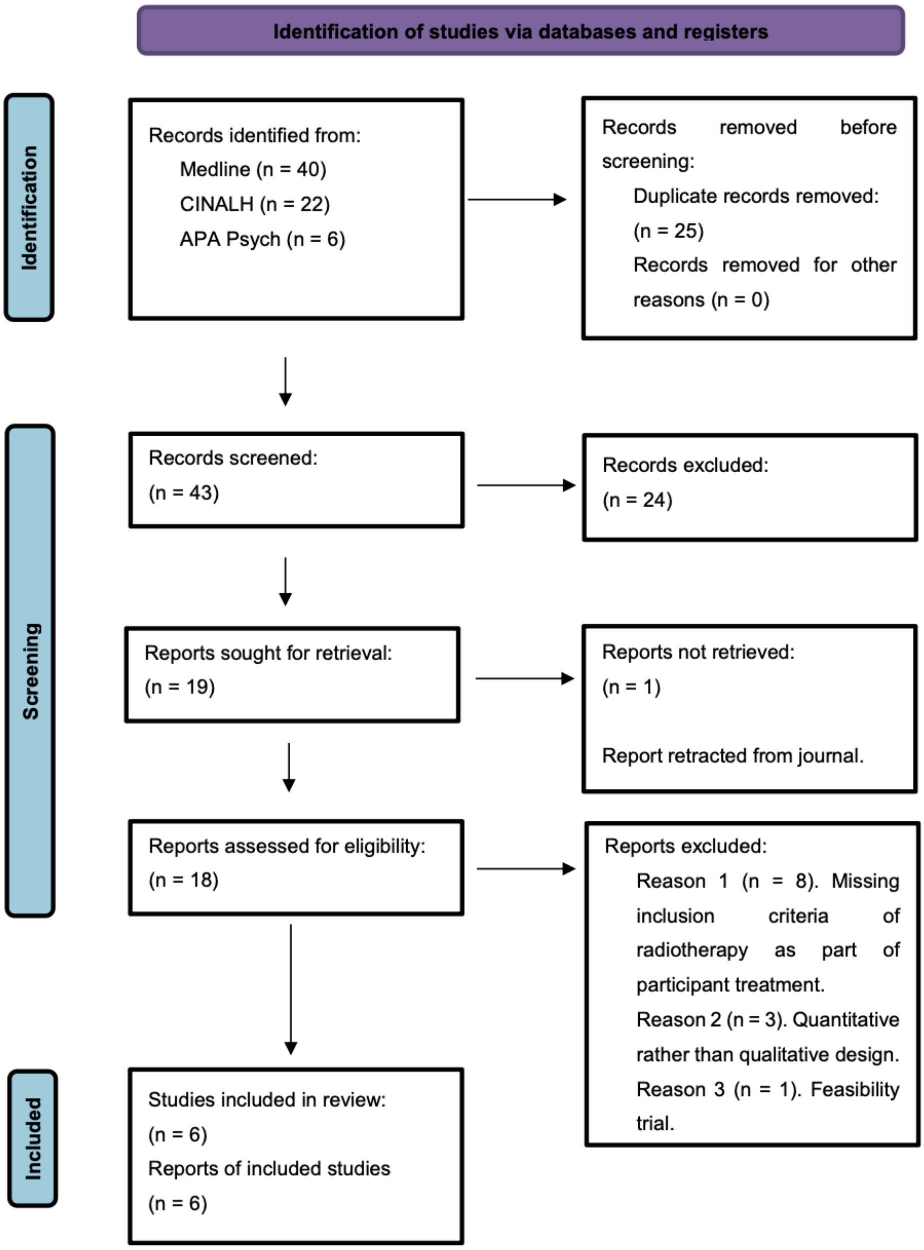

Figure 1. PRISMA flow chart.[15]

The search strategy returned n=68 articles. Following analysis, a total of six papers were included in the final review, a summary of which are detailed in Table 2. The themes identified within the included articles comprised of side effects, education, social influences, practical and personal factors, as well as prior PA engagement affecting PA engagement. Articles excluded incorporated participants who did not receive radiotherapy, or their treatment pathway was not clearly stated, studies being of quantitative rather than qualitative design or being a feasibility trial.

Table 2. Results Table

Author(s), Year, Location	Method	Abstract
Donnelly, C. M., LoweStrong, A., Rankin, J. P., Campbell, A., Blaney, J. M. & Gracey, J. H. 2013.[16] Northern Ireland.	Qualitative focus groups facilitated utilising a question guide. Purposive sampling with gynaecological participants (n= 16) recruited from previous randomised controlled trial testing a PA intervention. Data analysed using five-stage 'Framework' approach to identify themes.	This study explored experiences and perceptions of participants who participated in a PA intervention. Themes identified influencing engagement included side effects, social influences, education, practical factors, and a pre-existing relationship with PA.
Lindgren, A., Dunberger, G. & Enblom, A. 2017.[19] Sweden.	Qualitative semi-structured interviews. Purposive sampling (n=13) from gynaecological cancer survivor patient association and an oncology rehabilitation reception. Data analysis involved transcribed interview content	This article describes gynaecological cancer survivor experiences of incontinence and its link with QoL, exploring the possibility of PA and perceptions/involvement with pelvic

	categorised by two authors and validated by a third.	floor muscle training. Emerging themes influencing engagement included side effects, social influences, education and personal.
Araya-Castro, P., RoaAlcaino, S., Celedon, C., Cuevas-Said, M., de Sousa Dantas, D. & Sacomori, C. 2022.[22] Chile.	Semi-structured interviews. Purposive sampling, selecting gynaecological cancer survivors (n= 11) with different levels of adherence based on participation in the preventative pelvic floor dysfunction (PFD) educational program. Manual and software assisted data analysis was utilised to identify themes.	Factors affecting engagement with a prehabilitation program to prevent PFD was explored in gynaecological cancer survivors receiving external beam radiation therapy. The themes identified regarding engagement with pelvic floor muscle exercises, included side effects, social influences, education, practical and personal factors.

Koutoukidis, D. A., Beeken, R. J., Lopes, S., Knobf, M. T. & Lanceley, A. 2017.[18] England.	Semi-structured interviews and focus groups. Purposive sampling, selecting endometrial cancer survivors (n=16) from support groups and those who participated in a previous study. Data was analysed using a six-phase approach to identify themes.	This study included an exploration of endometrial cancer survivors' attitudes, challenges and needs regarding PA. Themes that emerged included side effects, social influences, education, practical factors and personal.
Toohey, K., Paterson, C. & Coltman, C. E. 2023.[17] Australia.	Semi-structured interviews. Purposive, convenience sampling (n= 9) through invitations and advertisement of study. Data analysed to identify themes using six-phase approach.	The aim of the study was to explore ovarian cancer survivors' engagement with PA. Social influences, personal, practical factors, side effects and prior PA engagement emerged as themes

Millet, N., McDermott, H. J., Moss. E. L., Edwardson, C. L. & Munir, F. 2021.[20] England.	Semi-structured interviews. Purposive sampling (n= 10) via charities and advertising. Data analysed manually with the assistance of a coding template to identify themes.	Within this study preferences, barriers and facilitators to PA were identified. Themes that emerged included sideeffects, education, practical factors, and prior PA engagement.

Discussion:

Side Effects

Donnelly et al.[16] identified fatigue benefits resulting from PA, with a transition from treatment related lethargy to exercise-induced tiredness which was perceived in a more positive light. Studies from Toohey et al.[17] and Koutoukidis et al.[18], also identified engagement motivations were rooted in viewing PA as a tool to reduce symptom burden.

Donnelly et al.[16] observed views of not wanting to engage in PA due to radiotherapy induced pelvic side effects or sickness from chemotherapy. Treatment related incontinence was also identified as a barrier to engaging with the intervention. [18, 19] Additionally, Millet et al.[20] reported that accessing toilet facilities could be a further barrier to engagement. Though not an explicit link with incontinence, given the pelvic side effects experienced by gynaecological cancer survivors and further mentions of incontinence raised in this study, the assumption can be reasonably made. A further study by Farrokhzadi et al.[21] identified incontinence as a barrier, although this link was not statistically significant (p=0.62). Thus, it can be suggested that incontinence is a barrier to engagement, however it may not be relevant to all gynaecological patients.

Toohey et al.[17] additionally found PA was not prioritised when participants were not well or treatment limited their ability to perform everyday tasks. Koutoukidis et al.[18], Millet et al.[20] and Araya-Castro et al.[22] also established this within their research. Farrokhzadi et al.[21] found chemotherapy and radiotherapy were significant (p=0.008) indicators in participants likely to report disease specific barriers. Despite this, Koutoukidis et al.[18] and Lindgren et al.[19] reported some participants adapted their exercise to overcome these barriers.

Social influences

Family/partners, friends and other connections were linked with PA engagement throughout the studies in this review. Millet et al.[20] identified a reduction in embarrassment when participants stated they were “open about… issues”, thus encouraging engagement. While the issues referred to are not clear, there is an evident link to sharing with others.

A similar theme was identified by Lindgren et al.[19], surrounding incontinence, which indicated sharing helps build understanding and avoids embarrassing situations. Toohey et al.[17] additionally found that support from family, friends and partners was key to consistently participating in PA. Furthermore, this study identified group exercise classes increased accountability and adherence. Araya-Castro et al.[22] additionally depicted participants encouraging others outside of the study to get involved and Koutoukidis et al.[18] identified motivation from family members facilitated PA and reported group exercise as beneficial. Further studies additionally identified group exercise with others who had similar experiences motivated participants to continue, and participants found it easier to take part when supported by peers.[23, 24]

Millet et al.[20] identified competition, either internal or with others, as another engagement motivator. While the participants in the study by Donnelly et al.[16] did not engage in group PA, they also expressed a wish to connect with other cancer survivors.

Furthermore, it was identified family and household responsibilities took priority over PA.[17] A further study revealed those who exercised with others who were more active/able than them acted as a barrier, as did having an unmotivated partner.[25], Whereas, those who exercised with partners who were motivating and supportive, were more likely to stay engaged.[25]

Education

A lack of information or education surrounding exercise advice following treatment was identified.[16, 17, 18, 19, 20] While some of these studies were published over five years ago, it is evident a gap in care is present within gynaecological cancer survivors' treatment pathway. As part of the NHS Long Term Plan, personalised care should be provided, with the inclusion of health and wellbeing information and support offered to every person diagnosed with cancer.[27] The need for this level of care is evident through the studies by Donnelly et al.[16] and further supported by Tyrrell et al.[26], who identified that without information regarding activity levels and safe/unsafe activities for participants, a barrier to engaging in PA is created. Additionally, Koutoukidis et al.[18] indicated participants were looking for advice to aid recovery and manage side-effects. Furthermore, Araya-Castro et al.[22] suggested feedback from the medical team helped motivate participants, whereas a lack of feedback dissuaded them. Motivation was likewise found when participants understood why they were engaging in PA. When specifically considering interventions, Araya-Castro et al.[22] also identified barriers in the form of misinformation or poor coordination with the treating team.

Individualised care is additionally advocated by participants in the study conducted by Toohey et al.[17], with dissatisfaction voiced in generic and generalised exercise advice given. Both Toohey et al.[17] and Koutoukidis et al.[18] found information was alternatively sought via the internet when not supplied by health care professionals.

Direct contact with health professionals who could work within an individual's boundaries and limitations was advocated through the research conducted by Donnelly et al.[16] and Toohey et al.[17]. Araya-Castro et al.[22] found participants felt supported when they built a rapport with health professionals. However, Donnelly et al.[16] identified if participants did not exercise, they reportedly experienced guilt and a sense of letting their therapist down, conversely, regular phone calls from facilitators increased accountability and motivation. Preference for individual or group instruction was also voiced in the studies by Lindgren et al.[19] and Koutoukidis et al.[18]. These views are further reinforced by Black et al.[24] who found participants preferred face-toface instruction and exercise suited to comorbidities.

Timing of when to engage or introduce gynaecological cancer survivors to a PA intervention additionally affected engagement. Toohey et al.[17] and Donnelly et al.[16] both identified appropriate timing could influence engagement. Donnelly et al.[16] observed timing preferences were dependent on treatment and side effect extent, whereas Koutoukidis et al.[18] found participants preferred to receive this information following hospital discharge or during early follow-up appointments. These preferences align with the National Institute of Health and Care clinical guidelines which recommend a tailored, personalised healthcare approach.[28]

Personal

Personal accountability and internal motivation were identified as factors that affect PA engagement.[16, 18, 19] Koutoukidis et al.[18] reported participants had varying degrees of consciously monitoring their PA behaviour. A similar insight was identified by Hardcastle et al.[29], who found those who valued and prioritised PA resulted in improved engagement. Millet et al.[20] additionally reported setting targets and tracking progress encouraged engagement, with participants feeling empowered and in control of their treatment when active. Similarly, a further study found participants felt as though they were taking control when exercising.[25] Additionally, motivations linked with body image were identified, with Toohey et al.[17] and Donnelly et al.[16] recognising participants exercised to alter their body shape and manage weight. A quantitative study by Rossi et al.[30] also found motivations for participating included a desire for health improvement (48%) and to lose weight (26%). However, body image was identified by Koutoukidis et al.[18] as a potential barrier, with one participant disinclined to engage due to perceived obesity-related stigmas. Finally, Koutoukidis et al.[18] found for some participants, surviving cancer empowered them to change their lifestyles. However, other participants felt they were already living a healthy lifestyle or alternatively felt there was no need to change their behaviour.

Practical Factors

Green spaces or the lack of them were cited as factors that would affect engagement in PA.[17, 18]. Additionally, these studies suggested the cost of formalised exercise and geographical distance were barriers. Furthermore, Millet et al.[20] noted that safe environments were also linked to engagement. Time, or the lack of it, was identified as another factor that affected engagement.[17, 18, 22] This was further reiterated by Black et al.[24], Tyrrell et al.[26] and Hardcastle et al.[29].

Prior Physical Activity Engagement

It was additionally suggested participants who had a pre-existing relationship with exercise were linked with increased levels of PA throughout or following treatment.[16, 17, 20] Moreover, Millet et al.[20] found structure or routine encouraged engagement. However, it should be noted in the studies by Toohey et al.[17] and Millet et al.[20] a higher proportion of participants who are both more active than the general gynaecological cancer survivor population or who have more severe barriers to PA may have been recruited. This is due to convenience sampling, which may have attracted participants with a greater interest in research surrounding PA or managing treatment related side effects, thus potentially impacting the results.

Recommendations:

Greater involvement and support from health care professionals by encouraging PA engagement within both gynaecological cancer patients and their social circle is recommended. Further, health care professionals evidently have a gap in their education and knowledge regarding the type of information that should be provided, as well as when this information should be given. This suggests further training for health professionals could be implemented as an intervention strategy. Additionally, there is evidently a lack of person-centred care provided, with a need for a tailored approach that recognises survivors' unique preferences, physical limitations, and readiness to engage with PA, which are essential for promoting sustained participation. Furthermore, creating safe and accessible environments for exercise, alongside addressing financial and logistical barriers, is critical for promoting long-term adherence and should be considered within interventions.

However, it is also evident cancer treatments for gynaecological patients, including those receiving radiotherapy, can have negative side effects, which should be considered when making PA recommendations. Although treatment-related side effects clearly affected engagement, the studies included in this review were heterogeneous. While all studies included cohorts who had some exposure to radiotherapy, not all of the participants had been treated with radiotherapy. To achieve a more comprehensive understanding of how radiotherapy affects gynaecological patients' engagement with PA and if this has a more significant influence on engagement, research looking at gynaecological cancer survivors who have all received radiotherapy as part of their treatment should be conducted.

Limitations:

This review offers a rapid evaluation of the factors influencing engagement with PA among gynaecological cancer survivors, providing timely insights that may support further investigation. Conducted over six months on a part-time basis and taking a systematic approach, it was designed to balance feasibility with rigour. The use of three databases allowed for a focused and manageable search strategy, though it may have limited the comprehensiveness of the findings.

Several limitations should be acknowledged. The review was conducted by a single researcher, which may have introduced bias.[31] Time and word count constraints may also have affected the depth of the analysis. The exclusion of the term "feasibility" helped remove studies unrelated to the review's focus, such as those purely assessing feasibility without outcome data; however, this may have inadvertently excluded relevant studies. Similarly, further refinement and expansion of the keyword strategy might have improved the breadth of included literature.

Finally, while rapid reviews are valuable in circumstances where limited resources are available or there is a need for an urgent information synthesis, they may yield different outcomes compared to more exhaustive systematic reviews. As such, the findings should be interpreted with caution, and future research may benefit from a broader and more detailed investigation using systematic methods.[32]

Conclusion:

This literature review highlights a complex interplay of factors including treatmentrelated side effects, education, social influences, practical considerations, personal attributes, and prior engagement with PA that collectively shape behaviours among gynaecological cancer patients. A consistent theme across the literature is the significant impact of treatment side effects, particularly from radiotherapy, which can serve as a barrier to PA engagement. These challenges underline the necessity of tailoring exercise recommendations to account for treatment-related limitations and fluctuations in patients’ physical capabilities.

The identified lack of accessible, timely, and personalised exercise guidance posttreatment reveals a critical gap in current survivorship care. Addressing this gap requires a more structured and proactive approach within clinical practice to ensure that patients are provided with feasible, evidence-based advice and ongoing support.

Social support from family, peers, and healthcare providers is another influential factor, with implications for designing interventions that actively foster supportive networks.

Additionally, personal factors, such as intrinsic motivation, self-efficacy, and previous PA experience, suggest the need for individually tailored strategies to promote sustained engagement.

Practical barriers, including time constraints, financial limitations, and environmental accessibility, must also be addressed to make PA more achievable and inclusive.

These findings suggest important implications for clinical practice, including the integration of multidisciplinary PA support as part of routine care. Future research should explore how to deliver accessible, scalable, and personalised exercise interventions that accommodate the specific needs of gynaecological cancer survivors, to improve both recovery and quality of life.

References:

1. Ledford LRC, Lockwood S. Scope and Epidemiology of Gynecologic Cancers: An Overview. Semin Oncol Nurs. 2019;35(2):147-50. doi:10.1016/j.soncn.2019.03.002
2. Lin K, Edbrooke L, Granger CL, Denehy L, Frawley HC. The impact of gynaecological cancer treatment on physical activity levels: a systematic review of observational studies. Braz J Phys Ther. 2019;23(2):79-92. doi:10.1016/j.bjpt.2018.11.007
3. Sacomori C, Araya-Castro P, Diaz-Guerrero P, Ferrada IA, Martínez-Varas AC, Zomkowski K. Pre-rehabilitation of the pelvic floor before radiation therapy for cervical cancer: a pilot study. Int Urogynecol J. 2020;31(11):2411-8. doi:10.1007/s00192-020-04391-5
4. Monteiro MGCT, de Morais Gouveia GP. Physiotherapy in the management of gynecological cancer patient: A systematic review. J Bodyw Mov Ther. 2021;28:354-61. doi:10.1016/j.jbmt.2021.06.027
5. Bantum EO, Yamada PM, Makolo T, Yu H, Pagano I, Subia N, et al. Hula as a physical activity and social support intervention for sustained activity in female breast and gynecologic cancer survivors. Front Psychol. 2023;14:1190532. doi:10.3389/fpsyg.2023.1190532
6. Rose GL, Stewart EM, Clifford BK, Bailey TG, Rush AJ, Abbott CR, et al. Efficacy of exercise interventions for women during and after gynaecological cancer treatment – a systematic scoping review. Support Care Cancer. 2023;31(6):342. doi:10.1007/s00520-023-07790-8

7. Fleming S, Jones T, Janda M, Vagenas D, Ward L, Reul-Hirche H, et al. Physical activity trajectories following gynecological cancer: results from a prospective, longitudinal cohort study. Int J Gynecol Cancer. 2020;30(11):1784-90. doi:10.1136/ijgc-2020-001543
8. Jones TL, Sandler CX, Spence RR, Hayes SC. Physical activity and exercise in women with ovarian cancer: A systematic review. Gynecol Oncol. 2020;158(3):803-11. doi:10.1016/j.ygyno.2020.06.485
9. Lin K, Frawley HC, Denehy L, Feil D, Granger CL. Exercise interventions for patients with gynaecological cancer: a systematic review and meta-analysis. Physiotherapy. 2016;102(4):309-19. doi:10.1016/j.physio.2016.02.006
10. McGrath D, O'Halloran P, Prue G, Brown M, Millar J, O'Donnell A, et al. Exercise Interventions for Women with Ovarian Cancer: A Realist Review. Healthcare (Basel). 2022;10(4):720. doi:10.3390/healthcare10040720
11. Abolaban F, Zaman S, Cashmore J, Nisbet A, Clark CH. Changes in Patterns of Intensity-modulated Radiotherapy Verification and Quality Assurance in the UK. Clin Oncol (R Coll Radiol). 2016;28(8):e28-e34. doi:10.1016/j.clon.2016.01.013
12. Tennant JP, Ross-Hellauer T. The limitations to our understanding of peer review. Res Integr Peer Rev. 2020;5(1):6. doi:10.1186/s41073-020-00092-1
13. Mavrogenis AF, Quaile A, Scarlat MM. The good, the bad and the rude peerreview. Int Orthop. 2020;44(3):413-5. doi:10.1007/s00264-020-04504-1
14. Critical Appraisal Skills Programme. CASP qualitative studies checklist. 2018. Available from: https://casp-uk.net/casp-tools-checklists/
15. Page MJ, McKenzie JE, Bossuyt PM, Boutron I, Hoffmann TC, Mulrow CD, et al. The PRISMA 2020 statement: an updated guideline for reporting systematic reviews. BMJ. 2021;372:n71. doi:10.1136/bmj.n71

16. Donnelly CM, Lowe-Strong A, Rankin JP, Campbell A, Blaney JM, Gracey JH. A focus group study exploring gynecological cancer survivors' experiences and perceptions of participating in a RCT testing the efficacy of a home-based physical activity intervention. Support Care Cancer. 2013;21(6):1697-708. doi:10.1007/s00520-012-1716-0
17. Toohey K, Paterson C, Coltman CE. Barriers and enablers to participation in physical activity among women diagnosed with ovarian cancer. J Cancer Surviv. 2023:1-12. doi:10.1007/s11764-023-01366-5
18. Koutoukidis DA, Beeken RJ, Lopes S, Knobf MT, Lanceley A. Attitudes, challenges and needs about diet and physical activity in endometrial cancer survivors: a qualitative study. Eur J Cancer Care (Engl). 2017;26(6):e12531. doi:10.1111/ecc.12531
19. Lindgren A, Dunberger G, Enblom A. Experiences of incontinence and pelvic floor muscle training after gynaecologic cancer treatment. Support Care Cancer. 2017;25(1):157-66. doi:10.1007/s00520-016-3394-9
20. Millet N, McDermott HJ, Moss EL, Edwardson CL, Munir F. Increasing physical activity levels following treatment for cervical cancer: an intervention mapping approach. J Cancer Surviv. 2022;16(3):650-8. doi:10.1007/s11764-021-01058-y
21. Farrokhzadi L, Dhillon H, Goumas C, Young J, Cust A. Physical Activity Correlates, Barriers, and Preferences for Women With Gynecological Cancer. Int J Gynecol Cancer. 2016;26(8):1530-7. doi:10.1097/IGC.0000000000000790
22. Araya-Castro, P., Roa-Alcaino, S., Celedón, C., Cuevas-Said, M., de Sousa Dantas, D., & Sacomori, C. (2022). Barriers to and facilitators of adherence to pelvic floor muscle exercises and vaginal dilator use among gynecologic cancer patients: a

qualitative study. *Supportive care in cancer : official journal of the Multinational Association of Supportive Care in Cancer*, *30*(11), 9289–9298. https://doi.org/10.1007/s00520-022-07344-4

23. Rossi A, Ortiz Rossi M, Torres-Panchame R, Brojan Heyman N, Garber CE, Nevadunsky N. Perceptions of a comprehensive physical activity behavior intervention among endometrial cancer survivors with obesity. A qualitative study. Gynecol Oncol Rep. 2023;50:101313. doi:10.1016/j.gore.2023.101313
24. Black KZ, Johnson L, Samuel-Hodge CD, Gupta L, Sundaresan A, Nicholson WK. Perceived barriers and preferred components for physical activity interventions in African-American survivors of breast or endometrial cancer with type 2 diabetes: the S.U.C.C.E.S.S. framework. Support Care Cancer. 2018;26(1):231-40. doi:10.1007/s00520-017-3839-9
25. Schrier E, Xiong N, Thompson E, Poort H, Schumer S, Liu JF, et al. Stepping into survivorship pilot study: Harnessing mobile health and principles of behavioral economics to increase physical activity in ovarian cancer survivors. Gynecol Oncol. 2021;161(2):581-6. doi:10.1016/j.ygyno.2021.02.023
26. Tyrrell A, Keats M, Blanchard C. The Physical Activity Preferences of Gynecologic Cancer Survivors. Oncol Nurs Forum. 2014;41(5):461-9. doi:10.1188/14.ONF.461-469
27. NHS England. The NHS Long Term Plan. 2019. Available from: https://www.longtermplan.nhs.uk/online-version/
28. National Institute for Health and Care Excellence. Patient experience in adult NHS services: improving the experience of care for people using adult NHS services (NICE guideline CG138). 2021. Available from:

https://www.nice.org.uk/guidance/cg138/chapter/Recommendations#tail oring-healthcare-services-for-each-patient

29. Hardcastle SJ, Douglass E, Wilson B, Maxwell-Smith C. Experiences and facilitators of physical activity engagement amongst colorectal and endometrial cancer survivors: the Wearable Activity Technology and Action-Planning (WATAAP) trial. Support Care Cancer. 2023;31(11):662. doi:10.1007/s00520-023-08137-z
30. Rossi A, Moadel-Robblee A, Garber CE, Kuo D, Goldberg G, Einstein M, et al. Physical activity for an ethnically diverse sample of endometrial cancer survivors: a needs assessment and pilot intervention. J Gynecol Oncol. 2015;26(2):141-7. doi:10.3802/jgo.2015.26.2.141
31. Pati D, Lorusso LN. How to Write a Systematic Review of the Literature. HERD. 2018;11(1):15–30. doi:10.1177/1937586717747384
32. Marshall IJ, Marshall R, Wallace BC, Brassey J, Thomas J. Rapid reviews may produce different results to systematic reviews: a meta-epidemiological study. J Clin Epidemiol. 2019;109:30-41. doi:10.1016/j.jclinepi.2018.12.015

Ethics and Declaration

1. Ethics approval and consent to participate

Not applicable

2. Funding

The authors have no funding sources to declare

3. Conflicts of interest

The authors declare that they have no competing interests

4. Availability of data

All data used within this literature review are cited and sourced within the referencing

5. Author contributions

TG: Conceptualisation, Formal Analysis, Investigation, Writing - Original Draft, Writing - Review & Editing

AR: Conceptualisation, Writing - Review & Editing

6. Acknowledgements

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7. Generative AI use

Not applicable