



Temperature predicts attendance at appointments for pelvic-floor muscle related dysfunction differently in publicly and privately funded appointments

Lisa A. Osborne^{1,2}, Catherine M. Whittall¹, Monika Vij¹, Simon Emery¹, Phil Reed³

¹Women's Health, Swansea Bay University Health Board, Swansea, UK; ²School of Psychology and Counselling, The Open University, Cardiff, UK;

³School of Psychology, Swansea University, Swansea, UK

Contributions: (I) Conception and design: All authors; (II) Administrative support: None; (III) Provision of study materials or patients: LA Osborne, CM Whittall, M Vij, S Emery; (IV) Collection and assembly of data: LA Osborne; (V) Data analysis and interpretation: P Reed, LA Osborne, S Emery; (VI) Manuscript writing: All authors; (VII) Final approval of manuscript: All authors.

Correspondence to: Professor Phil Reed, D.Phil. School of Psychology, Swansea University, Singleton Park, Swansea SA2 8PP, UK. Email: p.reed@swansea.ac.uk.

Background: The current study examined how temperature affects attendance at psychological tele-support sessions for women undergoing treatment for pelvic-floor muscle (PFM) related symptoms. It compared this relationship between when the appointments were publicly-funded or privately offered without cost to the patient. This is the first study to compare attendance when both publicly-funded and privately-offered sessions were free.

Methods: Session attendance of consequently-referred women with PFM-related dysfunction at a large metropolitan hospital were analysed as a function of type of appointment (publicly versus privately funded), and the temperature in the area where the patient lived at the appointment time.

Results: In contrast to previous work, missed appointments were less likely in the publicly-funded UK National Health Service (NHS) system than in a free privately-offered service. Temperature also impacted the two sorts of service differentially: there was a positive association between increasing temperatures and missed appointments without notice in the publicly-funded UK NHS, but not in the privately-funded system. However, there was a positive association between temperature and missed appointments with notice for the privately offered system, but not in the publicly funded system.

Conclusions: These results are discussed with respect to the impact of the reputation and trust of the organisations involved, the patient motivations to attend, and the perceived costs and benefits of nonattendance.

Keywords: Pelvic-floor dysfunction; psychological support; attendance; temperature

Received: 16 October 2023; Accepted: 13 March 2024; Published online: 27 March 2024.

doi: 10.21037/gpm-23-34

View this article at: <https://dx.doi.org/10.21037/gpm-23-34>

Introduction

Pelvic-floor muscle (PFM) related symptoms affect around 25% of adult women worldwide (1,2). The symptoms of PFM-related dysfunction include: urinary incontinence, voiding dysfunction, faecal incontinence, defecatory dysfunction, sexual dysfunction, and/or pelvic organ prolapse, as well other disorders of neuro-musculo-skeletal

structures in the pelvis or spine (3). It is associated with reduced quality of life (4,5), and a range of associated psychological difficulties, such as depression and anxiety (6,7). Conservative treatment for PFM-related dysfunctions involves PFM training (PFMT) physiotherapy, and it is recommended first-line treatment prior to surgery (8). Although PFMT is a safe, effective, and patient acceptable

treatment (9), its outcome effectiveness is reduced by patient nonattendance or noncompliance with treatment regimens (10). Such nonattendance often applies to between 10–30% of all PFMT appointments, and is a significant factor in this aspect of health care (11).

Nonattendance at PFMT appointments is associated with a wide range of factors, such as time spent on waiting lists, socio-economic status, and patient age (12). In addition, nonattendance at PFMT sessions is impacted by comorbid physical and psychological conditions, which can interfere with treatment engagement (4,13,14). For example, depression is associated with a lack of motivation and behavioural activity, amongst other things, which can reduce any engagement with activities (14). These factors have been relatively well documented, and psychological-support techniques have been established to overcome the effects of psychological comorbidities for patients with PFM-related dysfunctions, and boost PFMT attendance and outcomes (15,16).

However, the factors impacting this psychological aspect of care for women with PFM-related dysfunctions is not well researched. For example, although psychological support

sessions for PFM-related dysfunctions patients are successful in terms of boosting PFMT attendance and outcomes (10,17), as well as benefitting the underlying psychological conditions, such as depression and anxiety (16), these sessions, themselves, may be subject to nonattendance. These effects have not been studied, and fully understanding the reasons underlying nonattendance for all aspects of conservative treatments surrounding PFM-related dysfunctions is important, as such nonattendance is not only associated with poorer treatment outcomes, but also with increased costs to healthcare systems (11).

Several studies have established that nonattendance typically occurs more often when appointments are organised under publicly-funded health care systems, such as national health services (8) or government-funded health insurance schemes (18), than in systems where the patient pays directly for the specific treatment. This is also true for PFM-related dysfunctions patients in the UK attending PFMT treatment sessions (8). However, the comparison being made in these studies is between a free publicly-funded system [e.g., the UK National Health Service (NHS)], and a private patient-funded system involving cost to the patient at the time of treatment. The likely explanations for this differential attendance include the personal cost of treatment increasing motivation to attend sessions (19).

However, there have been no comparisons between a publicly-funded system and a private system when both are freely available. This is important within the context of supporting women with psychological issues resulting from a primary condition (such as abuse, or pelvic-floor dysfunctions), as this sort of psychological-support session is often offered pro bono, and is reasonably widely available (20). Under these conditions, it is unclear whether attendance would be lower or higher in the public or private sector. This is especially relevant when the system has a relatively high reputation, and strong levels of public trust, such as the UK NHS (21), as trust in the healthcare provider is a predictor of attendance (22). Thus, the current study aimed to examine whether, when both are freely available, there was any effect of the nature of the psychological support appointment for PFM-related dysfunctions; that is, a publicly-funded healthcare system (UK NHS), or freely offered by a private provider.

In addition, a set of variables not examined for PFM-related dysfunctions, but becoming increasingly important for attendance at medical appointments, concern environmental factors like temperature (18,23,24). As the

Highlight box

Key findings

- Missed appointments are less likely in the publicly-funded UK National Health Service (NHS) system than in a free privately-offered service.
- Temperature impacted the two sorts of service differentially.
- There was a positive association between increasing temperatures and missed appointments without notice in the publicly-funded UK NHS, but not in the privately-funded system.
- There was a positive association between temperature and missed appointments with notice for the privately offered system, but not in the publicly funded system.

What is known and what is new?

- Likelihood of nonattendance at sessions increases by up to 50% in extreme temperatures, and is a non-negligible contributor to appointment nonattendance; as temperature increases, attendance decreases.
- The effect is more pronounced in free compared to private healthcare systems.
- This is the first study to compare attendance when both publicly-funded and privately-offered sessions were free.

What is the implication, and what should change now?

- One possibility of utilising this information is thinking about the numbers of patients who could be booked for particular sessions, and whether this could be made to vary with temperature.

temperature becomes more extreme, the likelihood of nonattendance increases by up to 50% (25), so this factor is a non-negligible contributor to appointment nonattendance. One effect of temperature is that, as temperature increases, attendance decreases; this has been found for specialist services (18,24) and general outpatient appointments (18,23). Examining whether there are any relationships between temperature and attendance for psychological support sessions for PFM-related dysfunctions may help to illuminate some of the reasons for any nonattendance, which may become increasingly important as a function of climate change (23). In addition, the study aimed to examine whether temperature had any differential impacts on attendance under public and private systems.

It is worth note that almost all studies on the effects of temperature and attendance have been conducted with regards to face-to-face treatment sessions. Since the recent pandemic and associated social restrictions, there has been a move to greater use of telehealth sessions, which have continued post-pandemic (26). Such sessions have been used in PFMT (27,28), and such an approach has long been used for psychological support (29). It is far from clear that temperature would affect attendance at such sessions, as it is often believed that temperature has an effect due to it making travel to appointments harder or more unpleasant (18). This would not necessarily be as true for tele-appointments. As the effect of temperature has not been investigated previously for telehealth, the relationship between temperature and attendance at psychological support sessions is the focus of the current study.

In summary, the current study examined differences in attendance between publicly and privately offered telehealth psychological support sessions for women with PFM-related dysfunctions, and assessed whether there were any effects of temperature on attendance. To these ends, session attendance of consequently-referred women with PFM-related dysfunctions, from the same socio-economic catchment area, who were offered access to publicly (NHS) or privately-offered free psychological services, were compared to each other, and also as a function of the temperature on the day of the appointment.

Methods

Participants

Data from 948 consecutive psychological support (counselling) appointments for adult females with PFM-

related dysfunctions were collected. G-Power analysis suggested that, to obtain 90% power, using a rejection criterion of $P < 0.05$, with a small effect size ($r^2 = 0.10$), assessing the relationship between two variables (temperature and attendance), while controlling three other variables (age, socio-economic status, and waiting time), would require a sample size of 853.

Patients had been consecutively referred to a UK Women's Health outpatient department of a metropolitan hospital by a primary healthcare provider. Participants had a mean age of 45 (range, 18 to 65) years, and were initially referred to the hospital for a variety of pelvic-floor conditions: 20% with stress urinary incontinence but no prolapse; 7% with urge urinary incontinence but no prolapse; 33% with mixed urinary incontinence but no prolapse; 6% with faecal incontinence but no prolapse; 15% with prolapse; and 19% with prolapse and mixed incontinence. On the basis of their appointment at the hospital outpatient unit with a urogynaecology consultant, physiotherapist, or nurse specialist, patients had been referred for counselling support as part of their PFM-related dysfunctions treatment. The referral was either to the NHS service in that department, or to the free private service being offered for those women by the same psychologist. Referral was purely based on availability of sessions at the time, and not on any patient characteristics.

Procedure

On the basis of the clinical judgment of the healthcare professional in the Women's Health unit of the hospital (urogynaecology consultant, physiotherapist, or nurse specialist), patients were referred for psychological support to the counsellor. This referral was most often on the basis of depression, anxiety, or domestic abuse. The referral to either NHS or free-private sessions was made purely on the basis of availability of psychologist's session time. The psychologist was very clear with the patient at the time of referral as to whether the session was delivered as part of the NHS treatment, or as a free private session provided for NHS patients in that unit. This was also communicated to the patient by letter prior to the appointment.

The mean time from referral from the Women's Health team to the first contact by phone from the psychologist to arrange the appointment was 3 days. The mean time from this first contact to the arranged first session was 7 days. The patients' age and length of time waiting from the last appointment were noted. Their socioeconomic status was

Table 1 Total number of missed appointments (DNA plus UTA), DNAs, and UTAs for both NHS and free private sessions, along with the percentage of those sessions

Service type	Missed, n (%)		DNA, n (%)		UTA, n (%)	
	Yes	No	Yes	No	Yes	No
NHS	56 (7.9)	656 (92.1)	17 (2.4)	695 (97.6)	38 (5.3)	674 (94.7)
Private	30 (12.7)	206 (87.3)	14 (5.9)	222 (94.1)	16 (6.8)	220 (93.2)

DNA, did not attend and gave no reason; UTA, did not attend and gave a reason (unable to attend); NHS, National Health Service.

calculated using the Welsh Index of Multiple Deprivation [WIMD; Welsh Index of Multiple Deprivation (gov.wales); <https://stats.wales.gov.wales/Catalogue/Community-Safety-and-Social-Inclusion/Welsh-Index-of-Multiple-Deprivation>], which is the official measure of relative deprivation for areas in Wales. It is designed to identify small areas where there are the highest concentrations of several different types of deprivation (income, employment, health, education, access to services, community safety, physical environment, and housing), and codes deprivation levels of the postcode area from 1= most deprived to 5= least deprived: 11% were from area 1; 13% from area 2; 3% from area 3; 19% from area 4; and 53% from area 5. The temperature at the time of the appointment was obtained from the website 'time and date', which gives the temperature every hour, at a particular location. Whether the patient attended the scheduled session, did not attend and gave no reason (DNA), or whether they did not attend and gave a reason [unable to attend (UTA)], was noted.

Data analysis

The difference between the number of missed appointments (total, and then DNA and UTA, separately) for the publicly and privately funded systems were analysed using a chi-square test, and reporting the appropriate phi coefficient for effect size. Point biserial correlations were then conducted to analyse the relationship between temperature and missed appointments (in total, as well as both DNA and UTA, separately). Differences in the size of the correlations between temperature and missed appointments were tested for significance using z tests.

Ethical consideration

The study was conducted in accordance with the Declaration of Helsinki (as revised in 2013). Ethical approval was granted to this study by the NRES Committee

Region – East Midlands, UK (13/EM/0314). The trial was registered on clinicaltrials.gov (NCT02549157). Informed consent was obtained from all individual participants.

Results

In total, attendance at 948 sessions were studied; of which 712 (75.1%) were for NHS sessions, and 236 (24.9%) were for private sessions. There were a total of 85/948 (8.9%) missed appointments; of which 31/948 (3.3%) were DNAs, and 54/948 (5.7%) were UTAs. The average temperature at the time of the appointments over this 24-month period was 13.34 °C (+4.82; range, 1–26 °C).

Missed appointment by session type (NHS versus free private)

Table 1 shows the total number of missed appointments (DNA plus UTA), DNAs, and UTAs, for both NHS and free private sessions, along with the percentage of those sessions missed. Inspection of the total number of missed sessions reveals that there were more missed sessions for the free private (12.7% of all private session) than for the NHS sessions (7.9%). This difference was found to be statistically significant, $\chi^2(1)=5.048$, $P=0.02$, $\phi=0.073$. This pattern of data was also noted for DNAs, with there being more DNAs for private (5.9%) than NHS (2.4%) sessions, $\chi^2(1)=7.040$, $P=0.008$, $\phi=0.086$. However, there was no relationship between the type of session and UTAs: private (6.8%), NHS (5.3%), $\chi^2(1)=0.687$, $P=0.40$, $\phi=0.027$.

Temperature and missed sessions by type of session

Considered as a whole, point biserial correlations (controlling for patient age, socioeconomic status, and waiting time), revealed no relationship between temperature and: missed appointment in total, $r_{pb}=0.031$, $P=0.33$; DNAs, $r_{pb}=0.029$, $P=0.37$; or UTAs, $r_{pb}=0.014$, $P=0.85$.

Table 2 Point biserial relationship between temperature at time of appointment and the total number of missed appointments (DNA plus UTA), DNAs, and UTAs, for both NHS and free private sessions

Service type	Missed	DNA	UTA
NHS	0.053	0.101**	-0.007
Private	0.051	-0.065	0.129*

*, $P < 0.05$; **, $P < 0.01$. DNA, did not attend and gave no reason; UTA, did not attend and gave a reason (unable to attend); NHS, National Health Service.

Table 2 shows the point biserial correlations (controlling for patient age, socioeconomic status, and waiting time) between temperature at the time of the appointment, and total missed appointments, DNAs, and UTAs, for the NHS and private session separately. Inspection of these values shows that temperature was not significantly related to total missed appointments for either type of session. There was no statistical difference between these correlations, $z = 0.026$, $P = 0.97$. However, there were differing patterns for the NHS and private sessions with respect to the relationship between temperature and DNAs. Temperature was significantly positively associated with DNAs for NHS appointments (as temperatures increased, appointments were more likely to be missed), but not for private sessions. This difference in these correlations was statistically reliable, $z = 2.211$, $P = 0.02$. The reverse relationship was true for UTAs, where there was no significant relationship between temperature of UTAs for NHS sessions, but there was a significant positive relationship between temperature and UTAs for private sessions (the higher the temperature, the more likely were UTAs). This difference in correlations between the type of session was marginally significant, $z = 1.816$, $P = 0.06$.

Discussion

The current study explored attendance at publicly and privately offered telehealth psychological support sessions for women with PFM-related dysfunctions, and whether there were any effects of temperature on attendance. There were several key and novel findings. Most notably that missed appointments were less likely in the publicly offered free service (UK NHS) than in a free privately offered service. The temperature was also associated with missed appointment in the two sorts of service differentially, with increasing temperatures being associated with more missed appointments without notice in the NHS service, but with

more missed appointments with notice in the private system. These possibilities have not previously been explored in the previous literature on the factors involved in nonattendance for PFM-related dysfunctions treatment, and expand knowledge of the subtleties of the effects of the type of service offered, and the impact of the environment. One possibility of utilising this information is thinking about the numbers of patients who could be booked for particular sessions, and whether this could be made to vary with temperature.

Previous research has always suggested that sessions at private health care sessions tend to be better attended than publicly funded appointments (18), and this has also been reported for PFM-related dysfunctions (11). The explanation for this has always been that personal cost of treatment is related to attendance (19). However, in this instance, the novel result was when the two systems are compared on an equal cost basis, the publicly-funded system produced fewer missed appointments. It should be noted that in this study, the same service was offered in both cases by the same psychologist, reducing the potential impact of different forms of service and therapist. It may be that trust was greater when the service when offered as part of a relatively esteemed organisation (22). Given the deleterious effects of missed appointments on health economics in PFM-related dysfunctions (11), this provides another reason to maintain the reputation of such systems.

Overall, there was no effect of temperature on missed appointments, in contrast to several previous studies (18,23,24). However, when the two services were studied separately, there was an impact of temperature on different forms of missed appointments. In the publicly-funded services (UK NHS), as the temperature increased, the number of DNAs increased. Although this was not a large effect, it was statistically larger than the effect for the private service. Thus, one possibility is that publicly-funded government services are more prone to patients changing plans at the last minute for issues that are associated with the weather. This is not likely to be due to difficulties with travel (18), as all the sessions were delivered by telephone. In contrast, there were more missed appointment where notice had been given as the weather improved when the service was private. These results suggest that the government system is still prone to unnotified changes of plan, of which the service may be informed if it is offered privately (even when offered free). It is unclear why this occurs, unless the relative anonymity of a large organisation reduces the perceived

negative impact of the failure to notify of the intension to miss the appointment. That UTAs (notified missing of appointments) is more impacted by weather for a private service could also be explained in these terms.

Other than this possibility, the reasons for this difference are unclear, and integrating these findings theoretically will require an understanding of the nature of DNA and UTA motivations. It may be that DNAs are an expression of a lack of value placed on, or trust placed in, the service provider. If this is the case, then it may be expected that these would vary with the esteem of the organisation and/or clinician (21,22). There may also be an effect of a perception of the motives of the free private provider in offering the service on the likelihood of missing an appointment. However, this would not necessarily explain the differential effects of temperature on DNAs, which were greater for the more esteemed (on the basis of number of DNAs) provider. This explanation will require a development of a model that integrates the esteem of the organisation, patient motivation to attend, and the perceived costs of not attending (i.e., disapproval versus reinforcement from an alternative activity).

There are a number of limitations of the present study that should be noted. The data are drawn from a single centre, with a single service provider. This will limit the generality of the findings. Also, there were differences in the numbers of publicly and privately funded appointments in this study, which may impact the power of the statistical analyses. However, it should be noted that this allows a direct comparison between the services in the absence of any confounding variables. In terms of the weather, it should be noted that, while the data contained on the website is regarded as accurate, there can be variation in temperatures across very small areas, and this is not reflected in these data. Also, it has been suggested that daily hours sunshine, rather than temperature, is key in predicting non-attendance (23). It may also be that the effect is impacted by the preceding few days temperature, with an increase after a run of low temperatures having a more noticeable effect. These data were not analysed for the current study. Also, temperature increase is a relative comparison, dependent upon the country in which the study is conducted, and the same relationship is noted when the average temperatures are lower or higher (i.e., there is no absolute cut-off for the temperature that will signal a likelihood of nonattendance, but depends on what might typically be expected in that region).

Conclusions

In summary, missed appointments were less likely in the governmental offered free service (UK NHS) than in a free privately offered service. The temperature also impacted the two sorts of service differentially, with weather having a greater effect on missed appointments without notice in the NHS service, but on missed appointments with notice in the private systems. These findings suggest the esteem of the organisation, the patient motivations to attend, and the perceived costs and benefits of nonattendance are important areas to explore in further research.

Acknowledgments

Funding: None.

Footnote

Data Sharing Statement: Available at <https://gpm.amegroups.com/article/view/10.21037/gpm-23-34/dss>

Peer Review File: Available at <https://gpm.amegroups.com/article/view/10.21037/gpm-23-34/prf>

Conflicts of Interest: All authors have completed the ICMJE uniform disclosure form (available at <https://gpm.amegroups.com/article/view/10.21037/gpm-23-34/coif>). M.V. serves as the vice chair in Governance Committee for British Society of Urogynaecology. The other authors have no conflicts of interest to declare.

Ethical Statement: The authors are accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved. The study was conducted in accordance with the Declaration of Helsinki (as revised in 2013). Ethical approval was granted to this study by the NRES Committee Region – East Midlands, UK (13/EM/0314). The trial was registered on clinicaltrials.gov (NCT02549157). Informed consent was obtained from all individual participants.

Open Access Statement: This is an Open Access article distributed in accordance with the Creative Commons Attribution-NonCommercial-NoDerivs 4.0 International License (CC BY-NC-ND 4.0), which permits the non-

commercial replication and distribution of the article with the strict proviso that no changes or edits are made and the original work is properly cited (including links to both the formal publication through the relevant DOI and the license). See: <https://creativecommons.org/licenses/by-nc-nd/4.0/>.

References

1. Kenne KA, Wendt L, Brooks Jackson J. Prevalence of pelvic floor disorders in adult women being seen in a primary care setting and associated risk factors. *Sci Rep* 2022;12:9878.
2. Milsom I, Gyhagen M. The prevalence of urinary incontinence. *Climacteric* 2019;22:217-22.
3. Frawley H, Shelly B, Morin M, et al. An International Continence Society (ICS) report on the terminology for pelvic floor muscle assessment. *Neurourol Urodyn* 2021;40:1217-60.
4. De La Ossa AMP, Catai CC, Lopes S, et al. Do patients undergoing physical therapy in a rehabilitation center have a high prevalence of pelvic floor dysfunction and psychological disorders? A cross-sectional study. *Braz J Phys Ther* 2023;27:100536.
5. Fontenele MQS, Moreira MA, de Moura ACR, et al. Pelvic floor dysfunction distress is correlated with quality of life, but not with muscle function. *Arch Gynecol Obstet* 2021;303:143-9.
6. Demirci A, Hızlı F, Hamurcu HD, et al. Which type of female urinary incontinence has more impact on pelvic floor and sexual function in addition to anxiety and depression symptoms: A questionnaire-based study. *Neurourol Urodyn* 2023;42:814-21.
7. Vrijens D, Berghmans B, Nieman F, et al. Prevalence of anxiety and depressive symptoms and their association with pelvic floor dysfunctions-A cross sectional cohort study at a Pelvic Care Centre. *Neurourol Urodyn* 2017;36:1816-23.
8. Reed P, Mann K, Osborne LA. Pelvic floor muscle training services across the UK: a benchmarking survey of POGP members. *J Pelvic Obstetr Gynaecol Physiother* 2020;126:49-57.
9. Wallace SL, Miller LD, Mishra K. Pelvic floor physical therapy in the treatment of pelvic floor dysfunction in women. *Curr Opin Obstet Gynecol* 2019;31:485-93.
10. Khan ZA, Whittall C, Mansol S, et al. Effect of depression and anxiety on the success of pelvic floor muscle training for pelvic floor dysfunction. *J Obstet Gynaecol* 2013;33:710-4.
11. Reed P, Osborne LA, Whittall CM, et al. Patient and economic benefits of psychological support for noncompliant patients. *Front Psychol* 2022;13:829880.
12. Osborne LA, Whittall CM, Emanuel R, et al. Randomized Controlled Trial of the Effect of a Brief Telephone Support Intervention on Initial Attendance at Physiotherapy Group Sessions for Pelvic Floor Problems. *Arch Phys Med Rehabil* 2017;98:2247-52.
13. Fall M, Baranowski AP, Elneil S, et al. EAU guidelines on chronic pelvic pain. *Eur Urol* 2010;57:35-48.
14. Reed P, Whittall CM, Emery S, et al. Relationship between depression, anxiety, and attendance at pelvic-floor muscle training sessions. *Physiotherapy* 2023;120:10-6.
15. National Guideline Alliance (UK). Psychological therapy for women with pelvic floor dysfunction: Pelvic floor dysfunction: prevention and non-surgical management. London: National Institute for Health and Care Excellence (NICE); December 2021.
16. Xie M, Huang X, Zhao S, et al. Effect of Psychological Intervention on Pelvic Floor Function and Psychological Outcomes After Hysterectomy. *Front Med (Lausanne)* 2022;9:878815.
17. Osborne LA, Whittall CM, Emery S, et al. Cluster randomised control trial of the effect on attendance and outcomes of multi-disciplinary teams involving psychologists during pelvic floor muscle training for pelvic floor dysfunction. *J Obstet Gynaecol* 2022;42:310-5.
18. Norris JB, Kumar C, Chand S, et al. An empirical investigation into factors affecting patient cancellations and no-shows at outpatient clinics. *Decision Support Systems*, 2014;57:428-43.
19. Blæhr EE, Væggemose U, Søgaard R. Effectiveness and cost-effectiveness of fining non-attendance at public hospitals: a randomised controlled trial from Danish outpatient clinics. *BMJ Open* 2018;8:e019969.
20. Conway KM. Pro bono psychotherapy with survivors of intimate partner violence. *Affilia* 2016;31:372-8.
21. Gille F, Smith S, Mays N. What is public trust in the healthcare system? A new conceptual framework developed from qualitative data in England. *Social Theory & Health* 2021;19:1-20.
22. Brewster S, Bartholomew J, Holt RIG, et al. Non-attendance at diabetes outpatient appointments: a systematic review. *Diabet Med* 2020;37:1427-42.
23. Linthorst GE, de Metz J. Global warming could affect outpatient attendance. *Lancet* 2008;371:474.
24. Mieloszyk RJ, Rosenbaum JL, Hall CS, et al. Environmental Factors Predictive of No-Show Visits in

- Radiology: Observations of Three Million Outpatient Imaging Visits Over 16 Years. *J Am Coll Radiol* 2019;16:554-9.
25. Kelly SR, Loiselle AR, Pandey R, et al. Factors associated with non-attendance in the Irish national diabetic retinopathy screening programme (INDEAR study report no. 2). *Acta Diabetol* 2021;58:643-50.
 26. Hamadi HY, Zhao M, Haley DR, et al. Medicare and telehealth: The impact of COVID-19 pandemic. *J Eval Clin Pract* 2022;28:43-8.
 27. Colombage UN, Soh SE, Lin KY, et al. The feasibility of pelvic floor training to treat urinary incontinence in women with breast cancer: a telehealth intervention trial. *Breast Cancer* 2023;30:121-30.
 28. Hou Y, Feng S, Tong B, et al. Effect of pelvic floor muscle training using mobile health applications for stress urinary incontinence in women: a systematic review. *BMC Womens Health* 2022;22:400.
 29. Scott AM, Clark J, Greenwood H, et al. Telehealth v. face-to-face provision of care to patients with depression: a systematic review and meta-analysis. *Psychol Med* 2022;52:2852-60.

doi: 10.21037/gpm-23-34

Cite this article as: Osborne LA, Whittall CM, Vij M, Emery S, Reed P. Temperature predicts attendance at appointments for pelvic-floor muscle related dysfunction differently in publicly and privately funded appointments. *Gynecol Pelvic Med* 2024;7:2.