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Original Research

How Nurse Practitioners Approach Treatment of Genitourinary Syndrome of Menopause

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A B S T R A C T

This online survey from the American Association of Nurse Practitioners examined how nurse practitioners (NPs) identify, discuss, and treat the genitourinary syndrome of menopause (GSM) in postmenopausal women. Most NPs were either extremely (49%) or somewhat (30%) comfortable discussing vulvar and vaginal health with their patients but were not familiar with the term GSM. NPs (72%) frequently prescribed vaginal estrogen products for dyspareunia/vulvar and vaginal atrophy, but patients refusing this treatment primarily stated their concerns about safety. An opportunity exists to improve NP and patient knowledge about GSM symptoms and the safety and efficacy of associated treatment options.

Introduction

In 2013, the International Society for the Study of Women's Sexual Health and the North American Menopause Society convened a consensus conference to discuss the accuracy and viability of the terminology used to describe genitourinary tract symptoms related to menopause.[1] The term "genitourinary syndrome of menopause" (GSM) was put forth as a more inclusive term that would encompass all symptoms of the genitourinary tract system as opposed to the terms vulvar and vaginal atrophy (VVA) and atrophic vaginitis.

GSM was defined as "a collection of symptoms and signs associated with a decrease in estrogen and other sex steroids involving changes to the labia majora/minora, clitoris, vestibule/introitus, vagina, urethra and bladder."[1] The prevalence of GSM can be as high as 70% in postmenopausal women[2–6] and can cause significant pain, dryness, vulvar irritation, vaginal burning and itching, dyspareunia, dysuria, and recurrent urinary tract infections (UTIs).[1] Symptomatic GSM can be chronic and progressive over time.[7,8]

Surveys on the management and treatment of GSM in postmenopausal women have been conducted with physicians.[9–11] Although nurse practitioners (NPs) are important providers of health care to women and play an important role in the management and treatment of women with menopausal symptoms, specific knowledge of how NPs examine and manage women with GSM is largely unknown. Therefore, the primary objective of this survey was to determine how NPs identify, discuss, and treat symptoms of GSM in postmenopausal women.

Methods

A 14-question, online survey sponsored by the American Association of Nurse Practitioners (AANP) and TherapeuticsMD (Boca Raton, FL) was used to evaluate NPs' criteria for vaginal screening exams, the timing and practices for initiating conversations regarding vaginal/vulvar symptoms, the language used to discuss GSM symptomology, and their treatment and referral practices for common GSM symptoms. A list of questions included in the survey can be found in Table 1.

The sampling for this survey was pulled from NPInfluence, an online AANP survey panel. NPs were eligible to participate if they provided ≥20 hours of direct patient care per week. They also had to meet the following inclusion criteria: (1) were certified in family, women's health, adult, adult-gerontology primary care or gerontology; (2) were practicing clinically; (3) practiced in a community health center, federally qualified health center, hospital outpatient clinic, private practice, rural health clinic, or Veterans Affairs facility; (4) practiced at a site focused on family, geriatrics, internal medicine, preventive health, or women's health or obstetrics-gynecology (OB/GYN); and (5) practiced in a role of primary care, women's health, or OB/GYN. Eligibility criteria were modified after 1 week allowing participants to meet only 4 of the first 5 criteria because the initial response to the invitation had been less than adequate. Participating NPs were given 5 reward points (equivalent to $5) to complete the survey. Data collection ran for 16 consecutive days in April 2018.

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Table 1
Questions Included in the Nurse Practitioner Survey

1. How often do you conduct a screening vaginal exam on a postmenopausal woman?
2. At what age do you discontinue vaginal screening exams on postmenopausal women?
3. What prompts you to recommend or conduct a vaginal exam in postmenopausal women?
4. When do you initiate a discussion about vaginal/vulvar symptoms with your female patients?
5. How comfortable are you initiating a conversation with your patient about vulvovaginal symptoms and dyspareunia?
6. How knowledgeable are you about urogenital symptoms or complaints associated with decreased estrogen/menopause and the interventions for management them?
7. How often do you use the term "GSM" to describe changes associated with menopause?
8. What terms do you typically use with your patients when talking about GSM or VVA?
9. How often do you prescribe vaginal estrogen for postmenopausal women diagnosed with recurrent UTIs?
10. How often do you refer women with recurrent UTIs to another provider?
11. To whom do you refer?
12. How often do you prescribe the following for dyspareunia/VVA?
13. How often do your postmenopausal patients refuse a prescription for vagina estrogen?
14. Please rank the main reasons for refusal.

GSM = genitourinary syndrome of menopause; UTI = urinary tract infection; VVA = vulvar and vaginal atrophy.

The survey results were summarized descriptively according to age, gender, certifications, practice focus, and years of experience.

Results

Survey Respondents

A total of 1,432 surveys were sent to potentially eligible NPs; 511 completed the survey (35.7% response rate) with a median completion time of 4.7 minutes. The majority of participating NPs were female (94%), 35–54 years old (54%), and white non-Hispanic (82%; Table 2).

Most participants had a master's degree in nursing (79%) and were certified as family NPs (78%); more than half (53%) were in private practice with 69% of these in family practice. A total of 46% had ≤5 years of experience as an NP, 19% had 5–10 years of experience, and 33% had > 10 years of experience. Half of NPs were from relatively large communities (≥50,000 people).

Vaginal Screening Exams

When asked how frequently a practitioner performed a screening vaginal exam on a postmenopausal woman, 25% responded every 3 years and 21% responded annually (Figure 1). Other responses (44%) varied in time intervals and 10% responded never. More specifically, when queried what prompted them to conduct a vaginal exam, 21% responded it was the annual visit, 35% responded "when a woman voices a complaint about a vaginal symptom" and 34% responded "when the woman responds to questions during history and review of symptoms."

When data on this question were evaluated by respondent's type of certification, NPs certified in women's health were the most likely to conduct annual exams on postmenopausal women (40%). NPs certified in family practice were most likely to respond that they conducted vaginal exams when the women voiced a complaint about a vaginal symptom (37%) or if the woman responded to questions during history or review of symptoms (34%). NPs certified in adult-gerontology primary care or in adult also responded they conducted vaginal exams when the women voiced a complaint about a vaginal symptom (31%/39%) or when the woman responded to questions during history or review of symptoms (31%/39%).When questioned at what age do you discontinue the vaginal screening exams on postmenopausal women, NPs who had more experience practicing discontinued at a higher

Table 2
Demographic Characteristics of Nurse Practitioner Survey Participants

Parameters, n (%)	Participants (n = 511)
Age, y	
<35	65 (13)
35–44	134 (26)
45–54	140 (27)
≥55	164 (32)
Missing	8 (2)
Gender	
Female	481 (94)
Male	28 (6)
Missing	2 (< 1)
Race/Ethnicity	
White, non-Hispanic	418 (82)
Black, non-Hispanic	35 (7)
Hispanic or Latino	22 (4)
Other (non-Hispanic including multiracial)	25 (5)
Missing	11 (2)
Highest level of education	
MSN	401 (79)
DNP	81 (16)
Other	18 (4)
Missing	11 (2)
Certifications[a]	
Adult	57 (11)
Adult-gerontology primary care	45 (9)
Family	396 (78)
Gerontology	8 (2)
Women's health	25 (5)
Practice setting[a]	
Community health center	85 (17)
Federally qualified health center	51 (10)
Hospital outpatient clinic	92 (18)
Private practice	271 (53)
Rural health clinic	51 (10)
VA facility	12 (2)
Practice focus[a]	
Family	352 (69)
Geriatrics	44 (9)
Endocrinology	17 (3)
Internal medicine	152 (30)
Preventive health	87 (17)
Obstetrics/gynecology	62 (12)
Practice role[a]	
Primary care	483 (95)
Obstetrics/gynecology	52 (10)
Endocrinology	26 (5)
Health promotion	141 (28)
NP Experience, years	
≤5	235 (46)
5–10	99 (19)
11–15	45 (9)
16–20	57 (11)
≥21	66 (13)
Missing	9 (2)
Community population size	
≥1 million	47 (9)
250,000–999,999	73 (14)
50,000–249,999	139 (27)
10,000–49,999	135 (26)
2,500–9,999	82 (16)
<2,500	34 (7)
Missing	1 (0.2)

[a] More than 1 answer could be selected.

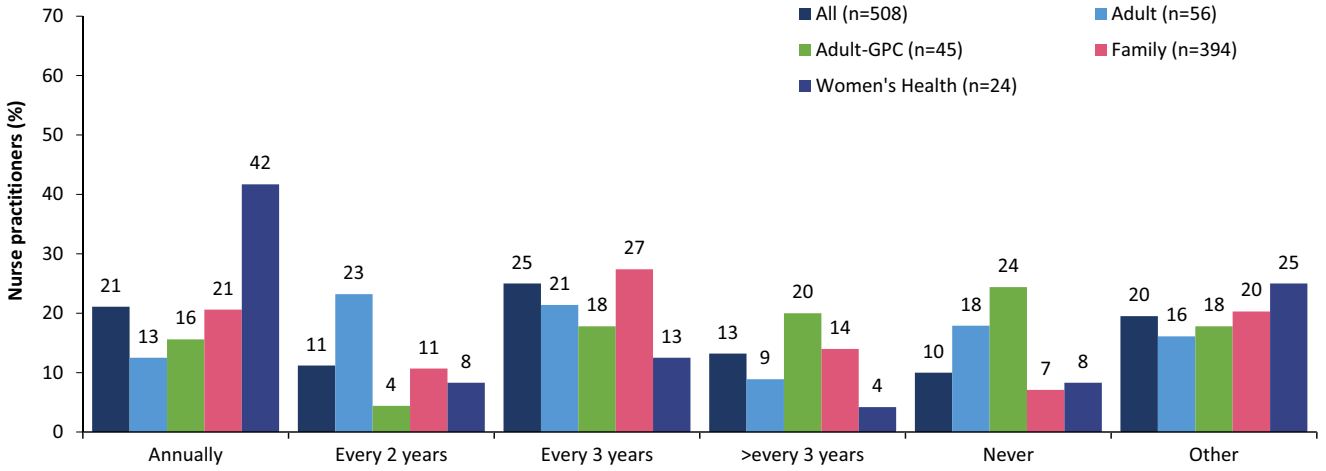

Figure 1. Frequency of conducting screening vaginal exams on a postmenopausal woman by certification. *GPC = gerontology primary care.*

mean patient age. NPs who worked in obstetrics and gynecology (OB/GYN) practices discontinued at the highest mean patient age (73.1 years) compared with their NP colleagues who practiced in primary care who discontinued vaginal screening exams at an earlier mean age of 68.6 years.

Communication and knowledge about vulvar and vaginal symptoms and dyspareunia

NPs reported they were extremely comfortable (49%) or somewhat comfortable (30%) initiating conversations about vulvar and vaginal symptoms and dyspareunia (79%). NPs certified in women's health reported the highest rate of being extremely comfortable (76%) or somewhat comfortable (16%) compared with NPs certified in adult-gerontology primary care reporting being extremely comfortable (36%) or somewhat comfortable (38%; Figure 2A). NPs practicing in OB/GYN settings were extremely comfortable (71%) initiating the conversation compared with those working in geriatrics (32%). The percentage of NPs being extremely comfortable initiating conversations increased with NP experience from 42% with ≤5 years to 71% with ≥21 years of experience.

The majority of NPs initiated discussions about vulvar and vaginal symptoms during scheduled visits for follow-up or other general health scheduled visits (59%) or during the routine well woman annual visits (40%). Only 7.4% of NPs reported they did not initiate conversations about vulvar and vaginal symptoms and dyspareunia but allowed the patient to initiate the conversation and 3.1% only initiated upon evidence of symptoms (Figure 2B). When reviewing how discussions about vulvovaginal symptoms and dyspareunia were initiated by NPs across years of experience, NPs with ≥15 years of experience (58%) were most likely to initiate the discussion during a scheduled visit for follow-up or other general health visit. NPs with ≤5 years of experience (61%) also initiated these discussions during a scheduled visit for follow-up or other general health visit compared with NPs with 11–15 years of experience (49%). NPs with 11–15 years of experience (18%) were more likely to allow their patients to initiate the discussion themselves.

Knowledge About Urogenital Symptoms and Management Options

Half of NPs described themselves as moderately knowledgeable (49%), and approximately one-third (30%) were extremely knowledgeable or very knowledgeable about decreased estrogen/menopause-related urogenital symptoms and management options (Figure 3A). Overall, all NPs certified in women's health rated themselves as either moderately, very, or extremely knowledgeable, and those certified in adult health were the second most knowledgeable of the participating NPs. Most NPs (94%) working in OB/GYN settings were extremely, very and moderately knowledgeable compared with 78% of those working in a family practice setting.

Despite the high self-reported knowledge about estrogen/menopause-related urogenital symptoms and management, awareness of and frequency of use of the term GSM was low, even in the group certified in women's health (Figure 3B). Most NPs (83%) did not know of or had never used the term GSM to describe genitourinary changes associated with menopause. Instead of using the term GSM, when asked about terminology used, NPs typically used terms including dry or dryness, VVA, menopause, changes, intercourse, and pain.

Prescribing Practices

Most NPs prescribed vaginal conjugated estrogen (76%) or estradiol (79%) creams for dyspareunia or VVA frequently or occasionally (Figure 4A). One-quarter of NPs also prescribed or recommended other products, which included supplements, bioidentical hormone therapy, and coconut oil. NPs working in OB/GYN practices prescribed more of all products compared with other practices (Figure 4B). Women's health NPs prescribed the most dyspareunia products compared with other certifications. Almost all NPs certified in women's health prescribed vaginal estradiol cream (96%). No specific prescribing patterns were noted by age group or years of experience as an NP. Approximately 19% of NPs frequently prescribed postmenopausal women vaginal estrogens for recurrent UTIs; 53% did so occasionally and 28% never.

NPs reported that the majority of their patients (64%) occasionally refused prescriptions for vaginal estrogen, and 15% frequently refused and 21% never refused prescriptions; no major differences in responses were observed based on NP certification. More than one-third of NPs (37%) ranked the safety of long-term use of estrogens as the primary reason that postmenopausal women refuse vaginal estrogens (Figure 5). The second leading reason was concern about risk of breast cancer, where 27% of NPs rated this as the primary reason and 29% as the secondary reason. The lowest ranking concern from patients according to NPs was that they did not like putting medication in their vagina.

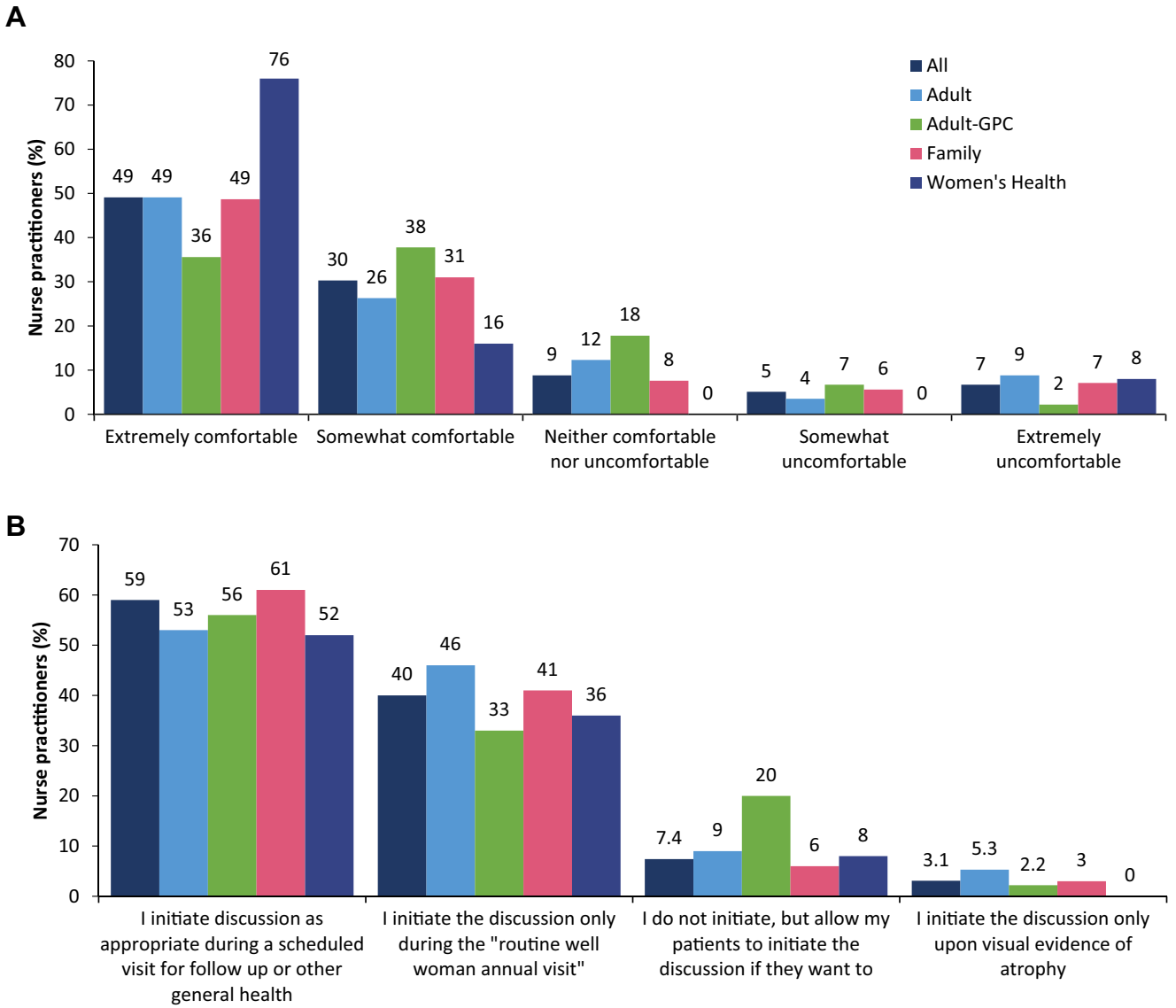

Figure 2. Conversations about VVA symptoms and dyspareunia. Comfort levels for initiating the conversation (A) and initiation of discussions (B) by certification. *GPC = gerontology primary care; VVA = vulvar and vaginal atrophy.*

Discussion

This AANP Women's Health Survey helped provide a snapshot of NPs' clinical practices and interactions with patients as they relate to women's health and GSM. Importantly, this is the first survey addressing NP's comfort with vulvar vaginal health, knowledge of the term GSM, assessment of GSM, and prescribing habits related to vaginal estrogen. Of substantial relevance is the level of comfort initiating a conversation about vulvar and vaginal symptoms and dyspareunia reported by NPs. Survey results are in contrast to surveys with other health care professionals (HCPs). In the REal Women's VIews of Treatment Options for Menopausal Vaginal ChangEs (REVIVE), the Vaginal Health: Insights Views and Attitudes (VIVA) and the Women's EMPOWER surveys, only 14% to 50% of women's HCPs asked about or initiated a conversation about their vaginal health in menopause.[12–14] Furthermore, although 40% of women expected HCPs to start a conversation about their menopausal symptoms in the REVIVE survey, only 13% of those who discussed VVA symptoms with their HCP said that their HCP had initiated the conversation (87% had not initiated the conversation).[12] In our study, only 7.4% of NPs reported never initiating a conversation about vulvar and vaginal symptoms and dyspareunia and allowing the patient to initiate the conversation. Therefore, 92.6% of NPs in the survey reported they initiated this important conversation with their patients.

These results may be reflective of nursing's underlying holistic approach to patient care, which integrates counseling and educating patients about their health concerns during each patient visit. In addition, nursing has a professional responsibility to provide counseling and education to their patients regarding health conditions and treatments. Nursing practice focuses on patient-centered care and shared decision-making. This commitment to integrate patient education and counseling into NP practice and the patient visit may elucidate the results noted between previous surveys and this current NP survey.

A relevant finding of this survey however is the lack of awareness and usage of the term "genitourinary syndrome of menopause" or GSM. NPs were found to be largely unfamiliar with this

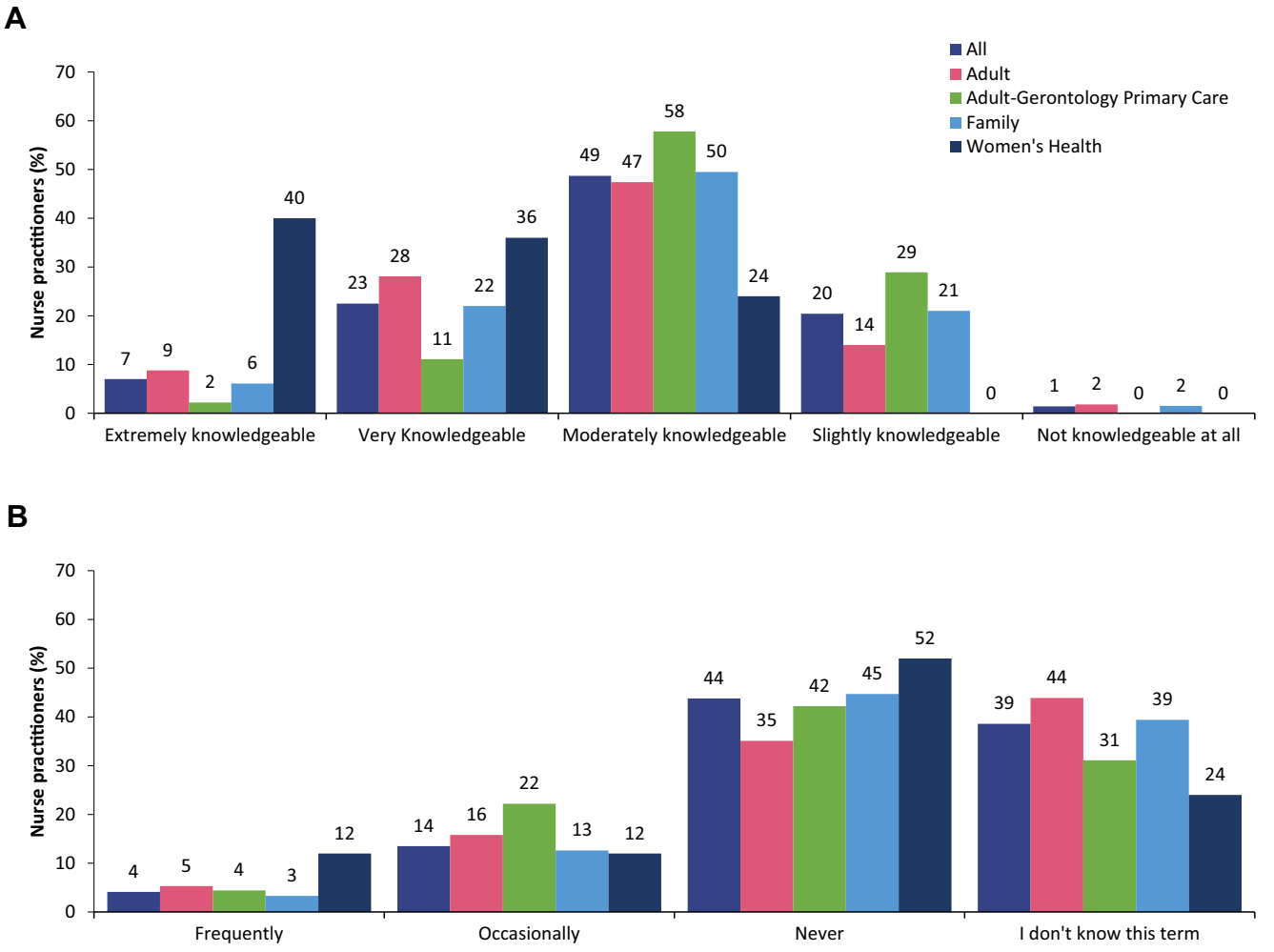

Figure 3. Knowledge level of menopausal urogenital symptoms or complaints (A) and frequency of using the term genitourinary syndrome of menopause or GSM to describe changes associated with menopause (B) by certification.

term despite the comfort they had with discussing VVA and dyspareunia. Previous surveys did not specifically address familiarity or usage of this term. The lack of familiarity may be due to a lack of understanding by the professional healthcare community as a whole. Although the term was introduced and the literature adopted the term GSM in 2014, it may take more time for HCPs and consumers to adopt the shift in terminology.

The frequency of and what prompts the recommendation for conducting vaginal screening exams are also relevant findings in this survey. Across specialties, NPs related most frequently that they performed a vaginal exam when a patient had a complaint or in response to their visit questions. This may be because NPs are responding to patients' complaints and performing an exam, which could lead to the recognition and diagnosis of GSM. However, it was surprising to find that only 21% of NPs conducted annual screening vaginal exams, whereas 25% conducted the exams every 3 years. This may be reflective of the current cervical cancer screening guidelines.[15] More than half of NPs reported variable times for conducting these exams on postmenopausal women including 10% who reported never conducting an exam. Current guidelines suggest that vaginal exams should actually occur annually on postmenopausal women[16] to screen patients for abnormalities that may be asymptomatic or for GSM. The discrepancy in when to conduct exams in postmenopausal women may exist when NPs are not aware of current guidelines or for the need for screening vaginal/pelvic exams in contrast to guidelines for cervical cancer screening. In addition, there has been inconsistency in the literature regarding recommendations for screening vaginal/pelvic exams.[17]

Prescribing patterns for NPs were consistent with current guidelines[18] and similar to previous findings.[9] This is not surprising given that NPs have been shown in the literature to provide evidence based care.[19–23] NPs also related that when estrogen was prescribed for treatment of GSM, women voiced concerns regarding safety and cost. This was similar to previous findings in other surveys.[12,14,24]

Finally, it was previously noted that NPs are not familiar with the term GSM. However, NPs reported that they were at least moderately knowledgeable about the urogenital symptoms associated with GSM. It therefore seems that despite the fact that NPs have not adopted or become familiar with the newer terminology, they are knowledgeable about the urological sequela of GSM. Their prescribing patterns are also reflective of this in that approximately 70% of NPs reported prescribing vaginal estrogen either occasionally or frequently for postmenopausal women with recurrent UTIs.

Online surveys have many limitations, including a certain degree of inherent bias in self-reported data such as social desirability[25] and differences in how questions are interpreted.[26] Furthermore, NPInfluence was an opt-in, online panel, so differences and the potential associated biases between those who like to

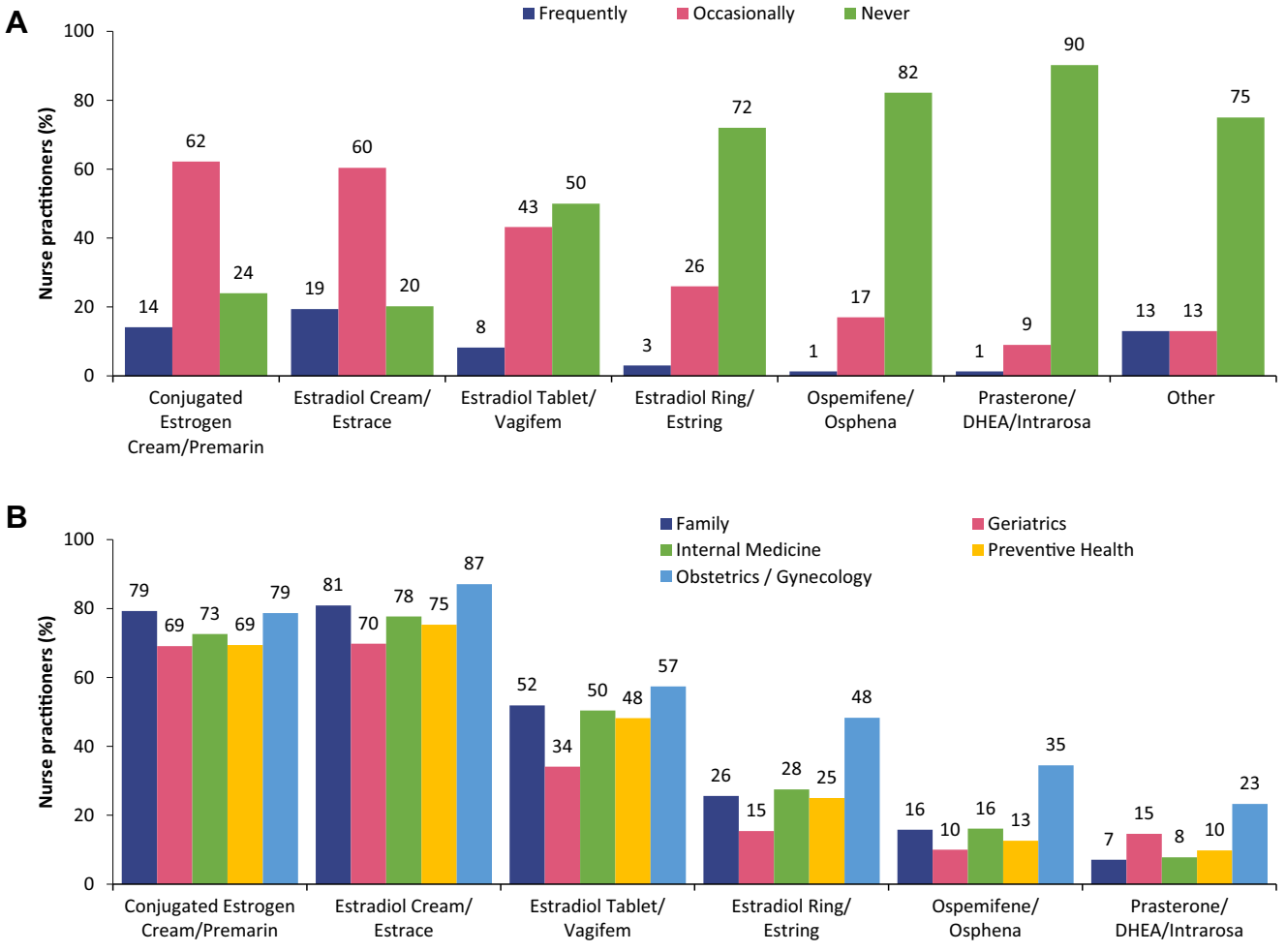

Figure 4. Frequency of prescribing (A) specific therapies and (B) frequently or occasionally by practice focus for VVA and dyspareunia. *VVA = vulvar and vaginal atrophy.*

complete market research surveys versus those who do not was not measured; thus, our NP sample may not be completely representative of the general NP population. To the best of our knowledge, this is the first survey of its size to gain perspective on NPs treating postmenopausal women for GSM. We found that the differences in experience, practice approaches and knowledge varied considerably at times between the demographic/characteristic groups surveyed, which support the need for better opportunities for GSM

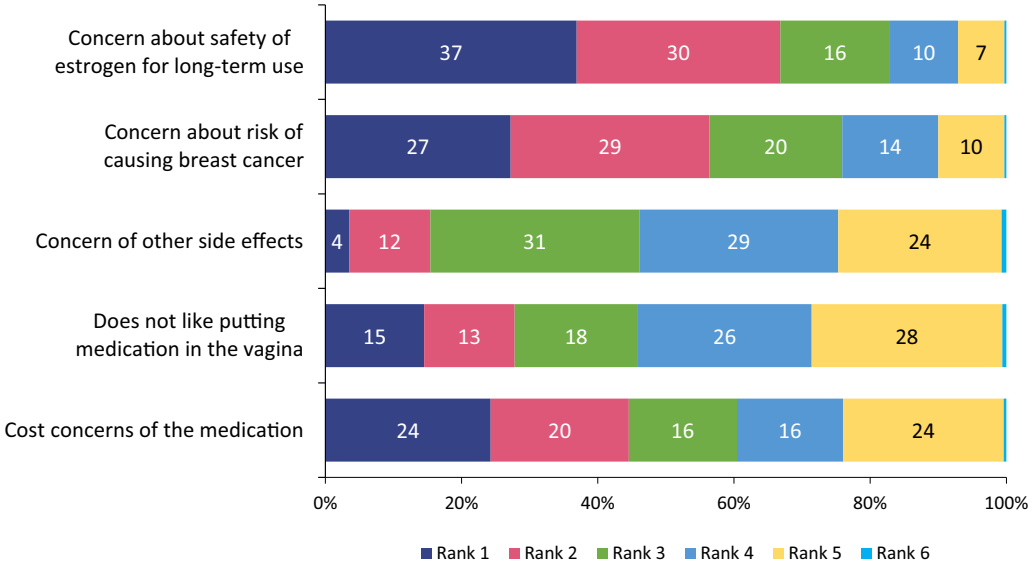

Figure 5. Frequency of ranks for the reasons why women do not want to use vaginal estrogen.

education among NPs treating menopausal women, especially those outside of a gynecological specialty.

Conclusions

Opportunities exist to improve NP and patient knowledge regarding the full spectrum of GSM symptoms, as well as women's understanding of treatment options. In terms of educational opportunities, a first step would be to guide and encourage improved communication between clinicians and patients, and to bring the discussion about GSM to the forefront of annual healthcare for postmenopausal women. Better dissemination and adoption of the GSM term is needed as it is a precise term devoid of stigma that could bring about improved communication between NPs and their patients. NPs across all specialties treating postmenopausal women should make inquiries about GSM symptoms a regular part of the postmenopausal women's health-related history. Given their level of comfort with the subject matter and willingness to assess patients, NPs are well poised to play an important role in maximizing women's health through improved communication leading to shared decision-making.

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