

High Unmet Medical Need in Brachioradial Pruritus: Results from a Large Patient Survey

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Background

Brachioradial pruritus (BRP) is a neuropathic itch condition that presents with localized pruritus involving the proximal dorsolateral arm, may be unilateral or bilateral, and may extend to the upper arm, shoulder, neck, or upper trunk¹. The prevalence of BRP is approximately three times greater in women than men, and most often seen in light-skinned individuals aged 45-65 years old. Its pathogenesis is related to cervical nerve root impingement at the levels of C5 to C8 as a predisposing factor².

There is limited data on BRP, its impact on quality of life, and the unmet needs of the patients. A recent survey of BRP patients demonstrated a significant burden on their quality of life due to itch³, and current treatment options are limited⁴.

We present here a patient-focused survey targeted to better understand the unmet needs within the BRP patient community.

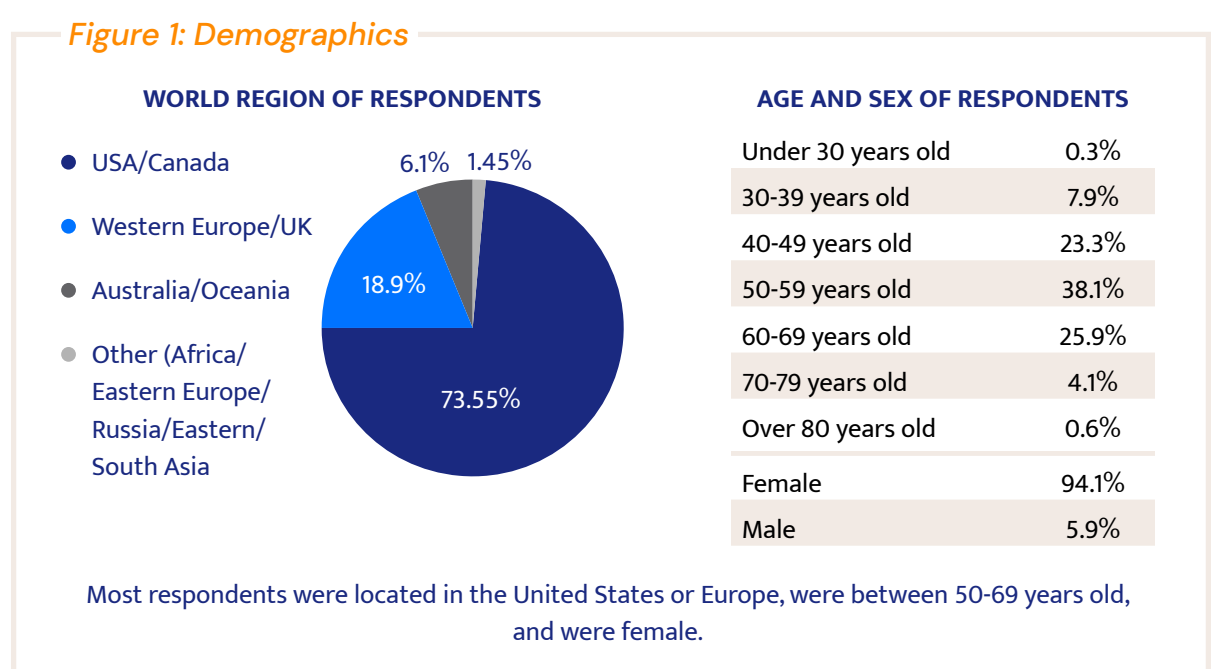
Methods

An online patient survey that aimed to best identify the unmet needs in brachioradial pruritus (BRP) was conducted from 10/2021 to 04/2022 in English and German. The platform and survey contents were HIPAA-compliant. The survey was disseminated among online BRP patient groups and all responses were anonymous.

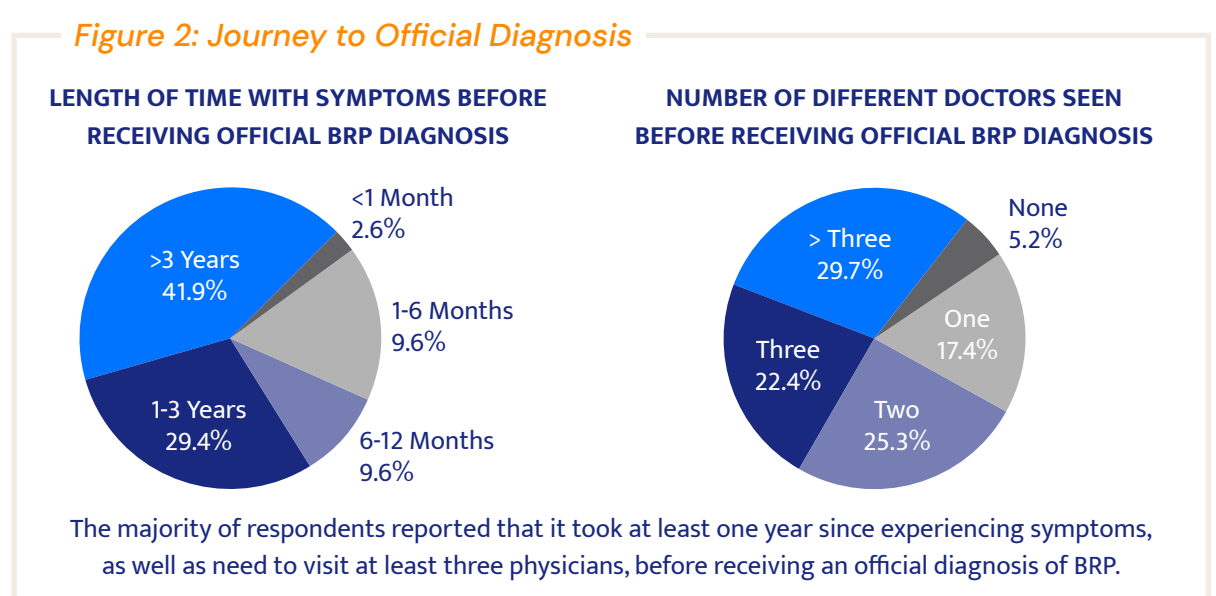
The survey, created in collaboration with BRP patients and dermatological experts in itch, included 36 questions focusing on the most significant elements of living with BRP: journey to diagnosis, severity and frequency of symptoms, treatment history, and impact on quality of life. Demographic information was also collected.

Results

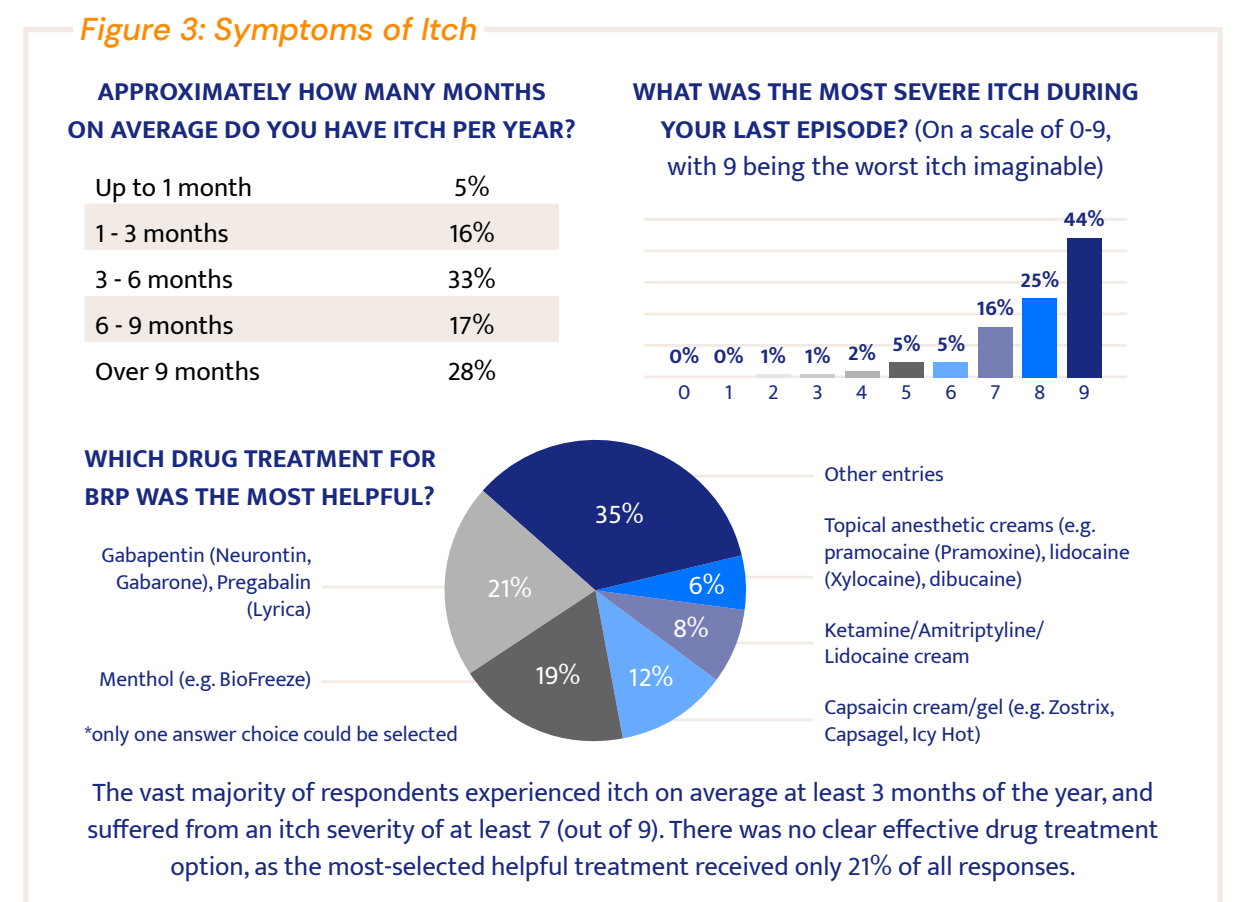
545 anonymous respondents worldwide participated in the survey, with 322 having reported a confirmed BRP diagnosis by a physician. The majority of patients were female (94%), 50-69 years old (64%), and living in the US (74%) (Figure 1).



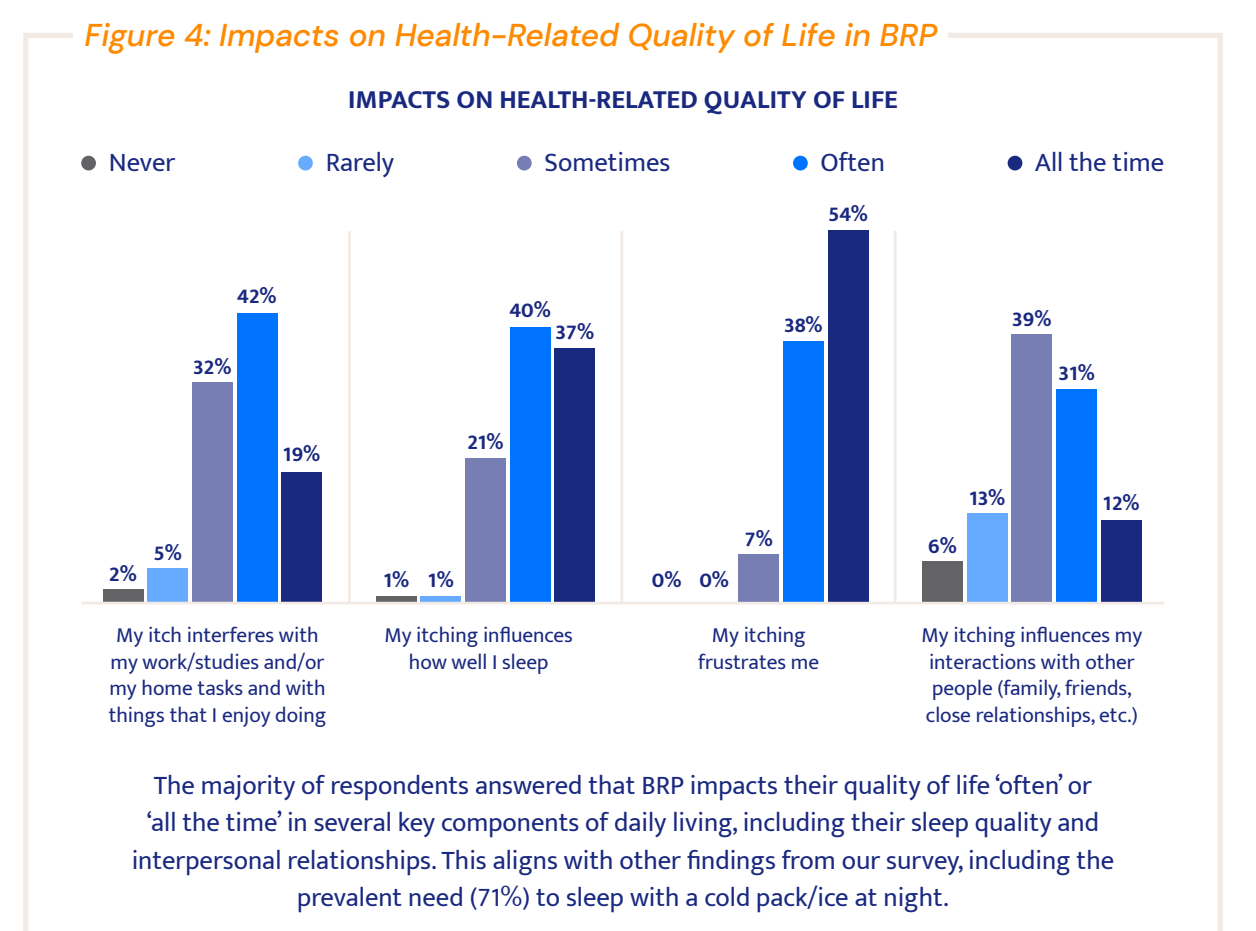
Data showed that establishing a correct diagnosis took at least three years since first experiencing BRP symptoms in 42% of patients, and 52% visited at least three different physicians before BRP was diagnosed. Misdiagnosis was common (39%) (Figure 2).



The majority of patients (85%) had severe itch (itch score ≥ 7) in their last episode, and 88% had visible scratch marks or bleeding. 78% suffered from itch at least three months per year, of which 28% suffered for over nine months per year. Patients often tried several drug treatments (mean >4) for itch. The leading most helpful treatment (as reported by the respondents) received only 21% of responses (Figure 3).



The impact on health-related quality of life could be seen in several aspects of daily living. Sleep quality was highly affected in 77% of patients, and 71% used ice packs at night. The vast majority of patients (92%) reported their itch frustrates them often or all the time (Figure 4).



Conclusion

The questionnaire's main aims were to identify the most pressing unmet needs, best understand the typical patient journey, the impact on patient's quality of life, symptoms severity, and currently used treatment options. These data show that a substantial proportion of BRP patients endure a difficult path to diagnosis, suffer from severe itch for the majority of the year, experience a highly negative impact on their quality of life, and lack good treatment options. These results emphasize the need to increase awareness of BRP and develop effective treatments for patients suffering from BRP.

Limitation: According to the literature, the majority of patients affected by BRP are females; however, we had a very high proportion (>90%) of female respondents. This could represent a selection bias of females, which are typically more interested to respond to online questionnaires as compared to males.

¹ Lane JE, McKenzie JT, Spiegel J. Brachioradial pruritus: a case report and review of the literature. *Cutis*. 2008 Jan;81(1):37-40. PMID: 18306846.

² Robbins BA, Schmieder GJ. Brachioradial Pruritus. [Updated 2021 Sep 14]. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2022 Jan.

³ Lipman ZM, Ven Yap Q, Nattkemper L, Yosipovitch G. Association of Neuropathic Itch With Patients' Quality of Life. *JAMA Dermatol*. 2021 Jun 16;157(8):997-8. doi: 10.1001/jamadermatol.2021.2010. PMID: 34132751; PMCID: PMC8209571

⁴ Magazin M, Daze RP, Okeson N. Treatment Refractory Brachioradial Pruritus Treated with Topical Amitriptyline and Ketamine. *Cureus*. 2019 Jul 10;11(7):e5117. doi: 10.7759/cureus.5117. PMID: 31523548; PMCID: PMC6741361