

Original Article

Beyond Intuition: Patient Fever Symptom Experience

Nancy J. Ames, RN, PhD, Claudia Peng, BA, John H. Powers, MD,
Nancy Kline Leidy, PhD, Claiborne Miller-Davis, RN, MS, Alice Rosenberg, RN,
Mark VanRaden, PhD, and Gwenyth R. Wallen, RN, PhD

National Institutes of Health, Clinical Center (N.J.A., C.P., C.M.-D., G.R.W.) and National Institute of Allergy and Infectious Diseases (M.V.), Bethesda; Clinical Research Directorate/CMRP (J.H.P., A.R.), SAIC Frederick Inc., National Cancer Institute-Frederick, Frederick; and United BioSource Corporation (N.K.L.), Bethesda, Maryland, USA

Abstract

Context. Fever is an important sign of inflammation recognized by health care practitioners and family caregivers. However, few empirical data obtained directly from patients exist to support many of the long-standing assumptions about the symptoms of fever. Many of the literature-cited symptoms, including chills, diaphoresis, and malaise, have limited scientific bases, yet they often represent a major justification for antipyretic administration.

Objectives. To describe the patient experience of fever symptoms for the preliminary development of a fever assessment questionnaire.

Methods. Qualitative interviews were conducted with 28 inpatients, the majority (86%) with cancer diagnoses, who had a recorded temperature of $\geq 38^{\circ}\text{C}$ within approximately 12 hours before the interview. A semi-structured interview guide was used to elicit patient fever experiences. Thematic analyses were conducted by three independent research team members, and the data were verified through two rounds of consensus building.

Results. Eleven themes emerged. The participants reported experiences of feeling cold, weakness, warmth, sweating, nonspecific bodily sensations, gastrointestinal symptoms, headaches, emotional changes, achiness, respiratory symptoms, and vivid dreams/hallucinations.

Conclusion. Our data not only confirm long-standing symptoms of fever but also suggest new symptoms and a level of variability and complexity not captured by the existing fever literature. Greater knowledge of patients' fever experiences will guide more accurate assessment of symptoms associated with fever and the impact of antipyretic treatments on patient symptoms in this common condition. Results from this study are contributing to the content validity of a future instrument that will evaluate patient outcomes related to fever interventions. *J Pain Symptom Manage* 2013;46:807–816. Published by Elsevier Inc. on behalf of U.S. Cancer Pain Relief Committee.

Address correspondence to: Nancy J. Ames, RN, PhD, Clinical Center, National Institutes of Health, Bldg. 10, Rm. 3-5627, 10 Center Drive, Bethesda, MD 20892, USA. E-mail: names@cc.nih.gov

Accepted for publication: February 18, 2013.

Key Words*Fever; symptoms, qualitative research, content validity***Introduction**

Fever is a universally recognized sign of inflammation, yet the patient-reported symptoms of fever vary across patients, disease types, and disease trajectories. Although the condition has been investigated medically since antiquity,¹ today there remains uncertainty associated with fever. This uncertainty stems from the fact that fever is a complex physiological response of which temperature elevation is merely one component.² One aspect absent from the literature that attempts to elucidate this multifaceted condition is empirical data that link specific patient-reported symptoms to the febrile response.

Most of the in-depth scientific evaluations of fever address the phenomenon only from the perspective of a researcher or clinician. In these studies and medical textbooks, much of what is designated as the symptoms of fever is based on long-standing assumptions about its clinical presentation discussed as a means to explicate the prevailing pathophysiological knowledge of the condition. For instance, chills or rigors are introduced as a manifestation of the process by which the body increases its temperature to the new set point dictated by the production of pyrogenic cytokines.²⁻⁴ This discourse serves to associate a widely accepted manifestation of fever, the chills, with the proposed physiology of the condition, the elevation of body temperature by endogenous pyrogens through the stimulation of cytokine release.⁵ The pathophysiological discussion is grounded by what is considered a ubiquitous symptom. Whether such manifestations are the only or the most bothersome symptoms associated with elevated body temperature has not been validated by nor questioned within the literature.

Because fever is an important sign of inflammation, it is necessary to understand its symptoms and explore the extent to which there are additional factors associated with these symptoms. Some clinicians state that patients “always” have symptoms with elevated body temperature, but neither the type nor frequency of the manifestations has been evaluated. A

symptom-focused inquiry is relevant now that evidence suggests physicians are considering the adaptive value of fever and are moving away from reflexive prescriptions of antipyretics.^{6,7}

Antipyretics are pharmaceuticals that reduce the body temperature of febrile individuals without affecting normal or artificially raised body temperatures.⁸ The administration of antipyretics to children is a common practice supported by most clinicians.^{7,9} However, some physicians and researchers argue that fever is a benign condition that can serve a protective function and that it should not be justification for the routine administration of antipyretics.^{1,10,11} Mackowiak argues that no experimental evidence exists to support the most basic justifications of antipyretic administration, specifically that reducing fever via antipyretics eliminates the harmful effects of fever or even that harmful effects necessarily accompany fever.¹² Kluger et al.^{13,14} surmise that fever plays a role in enhancing human specific and nonspecific immunity. Furthermore, Lee et al.¹⁵ propose that antipyretic treatments given to suppress the febrile response to infection may worsen patient outcomes. Because antipyretic administration is often justified by a desire to diminish the uncomfortable symptoms of fever,^{9,12} it is essential that clinicians substantiate the symptoms patients experience during fevers. As Styrt and Sugarman⁸ explain: “It is frequently acknowledged that a common reason for antipyretic therapy is ‘symptomatic treatment’ of fever. It is less clear exactly what symptoms are being treated and to what extent antipyresis actually makes the patient feel better.” (p. 1592)

Currently, there are no valid patient-reported outcome measures to describe the symptoms of fever. Clinical trials of antipyretics often focus on numerical measurements of body temperature only.¹⁶ When symptoms have been measured, this has not been comprehensive nor have content-valid standardized measurements been used. This calls into question the validity of these measures. The purpose of this

Download English Version:

<https://daneshyari.com/en/article/5879464>

Download Persian Version:

<https://daneshyari.com/article/5879464>

[Daneshyari.com](https://daneshyari.com)