Researchers have generally reported a positive linear relation between rumor anxiety and transmission but less consistent effects of situational anxiety and belief in the rumor. These conclusions, however, are based on relatively few studies that have only analyzed between-subject variance in rumor transmission and often in situations producing only moderate anxiety. We examined rumors stemming from 2 real-world settings: (a) the sudden death of a college student from meningitis and (b) the Washington, DC “sniper” shootings. We analyzed data using multilevel modeling and focused primarily on within-subjects variance. In both studies, we found strong overall effects of belief and typically no overall effect of rumor anxiety. More important, in both studies, a significant Belief × Anxiety interaction occurred. In contrast to past theorizing, the effects of belief were strongest for high-anxiety rumors. Also interesting was a significant curvilinear effect of anxiety at lower levels of belief in Study 1 and a significant main effect of situational anxiety in Study 2. We discuss the important contribution that multilevel modeling can make to the growing literature on rumor transmission.