Building a Definition of Irritability

From Academic Definitions and Lay Descriptions

Paula C. Barata¹, Ph.D., Susan Holtzman², Ph.D., Shannon Cunningham³, Ph.D., Brian P. O’Connor⁴, PhD., Donna E. Stewart⁵, M.D., F.R.C.P.C.

¹University of Guelph, Guelph ON, N1G2W, Canada

pbarata@uoguelph.ca

²University of British Columbia, Okanagan Campus, Kelowna, BC, V1V 1V7, Canada

susan.holtzman@ubc.ca

³University of Guelph, Guelph ON, N1G2W, Canada

cunnings@uoguelph.ca

⁴University of British Columbia, Okanagan Campus, Kelowna, BC, V1V 1V7, Canada

brian.oconnor@ubc.ca

⁵University Health Network, Women’s Health Program, Toronto, ON, M5G 2C4, Canada

donna.stewart@uhn.ca

Corresponding Author

Susan Holtzman, PhD

ASC 283, 3333 University Way

The University of British Columbia (Okanagan campus)

Kelowna, BC, Canada V1V 1V7

Phone: 250 807 8730

Email: susan.holtzman@ubc.ca
Abstract

The current work builds a definition of irritability from both academic definitions and lay perspectives. In Study 1, a quantitative content analysis of academic definitions resulted in eight main content categories (i.e., behaviour, emotion or affect, cognition, physiological, qualifiers, irritant, stability or endurance, and other). In Study 2, a community sample of 39 adults participated in qualitative interviews. A deductive thematic analysis resulted in two main themes. The first main theme dealt with how participants positioned irritability in relation to other negative states. The second dealt with how participants constructed irritability as both a loss of control and as an experience that should be controlled. The discussion integrates the findings of both studies and provides a concise, but comprehensive definition.

Keywords: Irritability, irritated, affect, definition, qualitative, interviews
**Introduction**

Irritability is a normal yet aversive response that most people will experience at least occasionally during their lives. It can be triggered by a range of daily hassles, including a poor night’s sleep, getting stuck in traffic, or a disagreement with a loved one. Chronically high levels of irritability can also be indicative of an underlying medical or psychiatric disorder (Fava et al., 2010; Yang, Hua, Lin, Tasia, & Huang, 2012). Regardless of the cause, chronically elevated irritability and/or frequent episodes of irritability have the potential to generate interpersonal conflict, erode marital relationships, and reduce overall quality of life for the individual, and those around them (Fava et al., 2010; Sahl et al., 2009; Stringaris, Cohen, Pine, & Leibenluft, 2009).

Growing evidence regarding the prevalence and impact of irritability in healthy and ill populations have triggered widespread calls for further research into the causes, consequences, and treatment of irritability (DiGiuseppe & Tafrate, 2007; Fava et al., 2010). However, a significant heterogeneity in current definitions of irritability has hindered research progress in this area. One significant concern is that existing definitions typically fail to distinguish irritability from related constructs, such as anger, aggression, and hostility. The most recent version of the *Diagnostic and Statistical Manual for Mental Disorders* is no exception, describing irritability as “persistent anger, a tendency to respond to events with angry outbursts or blaming others, an exaggerated sense of frustration over minor matters” (p. 163; DSM-5, 2013). Researchers have also disagreed on the extent to which irritability is a multi-faceted construct. Some have emphasized the need to consider the emotional, physiological, cognitive and behavioural aspects of irritability (Craig et al., 2008; Born & Steiner, 1999), while others have focused exclusively on a single affective dimension (DiGuisepppe & Tafrate, 2007).
The purpose of the present research was to generate a definition of the construct of irritability that would incorporate a lay understanding of the experience with established academic definitions. Two distinct, but complementary methodological approaches were employed. In study 1, we conducted a systematic review and content analysis of academic definitions of irritability that have been proposed over the past three and half decades. In study 2, we used qualitative interviews to examine the lay public’s understanding of the concept of irritability. This is the first time that in-depth interviews have been used to explore the experience of irritability in a diverse sample of community-dwelling adults. Findings from each study were analyzed independently, and then carefully integrated to generate a definition of irritability that is representative of both academic and lay perspectives.

Study 1

Study 1: Method

Data collection

A systematic search of the academic literature on irritability was conducted, and explicit original definitions that were published between 1975 and 2013 were extracted. A preliminary search indicated that a surge in irritability research began in the late 1970’s after the publication of a scale for the measurement of irritability (Snaith, Constantopoulos, Jardin, & McGuffin, 1978), so the mid-1970s was chosen as our starting point. When a definition by the same author was used in more than one publication and was substantially similar (i.e., virtually word for word), only the original definition was extracted.

First, a PsycINFO database search was conducted using the following criteria: (1) the term “irritab*” (without the term “bowel”), (2) published in English, (3) population group “Human”, and (4) not a dissertation. This resulted in 563 hits. The abstracts for each of these
records were screened to identify those articles that had even a small likelihood of containing a
definition of irritability. The full articles in this refined list (n=352) were then examined more
closely to determine whether an explicit definition of irritability was present. The reference lists
of these articles were also scanned to identify records that were missed. The PsycINFO search
plus the review of the additional articles yielded 21 unique definitions of irritability. Next, the
PubMed database was searched using the following criteria: (1) major topic “Irritable Mood”,
“irritable depression,” “irritable anger,” and “irritable aggression” (excluding “Irritable bowel
syndrome”), (2) published in English, and (3) population group “Human.” This search resulted
in 910 hits. As above, abstracts were scanned and full articles not already reviewed after
PsycINFO search (n=126) were investigated. The PubMed search yielded four additional
definitions. Next a similar search of Embase for “irritable mood” resulted in 175 hits, 41 articles
examined, and 1 unique definition of irritability. A similar search in CINAHL did not result in
any new definitions.

Analysis

A quantitative content analysis was conducted on the 26 definitions of irritability
(Krippendorff, 1980; Weber, 1987; citations asterisked in reference list1). Definitions were
generally brief. The median was 27 words, ranging from 10 words to 83 words (Mean = 32.69;
SD =18.94). Nvivo 9 (QSR International, 2010) was used to help code the data into small
meaningful units that ranged from one word (e.g., anger) to short phrases (e.g., a low threshold).
Preliminary codes were developed and then expanded and contracted to fit all of the data in a
parsimonious manner. This resulted in eight main content categories.

Study 1: Findings

1 A table of the definitions used is available from the first author upon request.
Building a Definition of Irritability

Behaviour

Most of the definitions (20/26) described irritability as a (verbal or non-verbal) behaviour. Typically (14/20), the behaviour was classified as expressed anger or aggressive behaviour. Three of Caprara and colleagues’ four definitions (Caprara et al., 1983, 1986, 1995) made no reference to an aggressive behaviour, but did reference “offensive”, “impulsive”, “rude”, and/or “controversial” behaviour. The remaining three behaviours were “negative,” but not otherwise specified. None of the definitions described violent behaviour.

Emotion or affect

All but two (24/26) used emotion words, specifically referred to irritability as an emotion, and/or said irritability was a response to negative emotions. By far, the most common emotion mentioned was anger (17/26). Annoyance was mentioned in five definitions and impatience in three definitions. All other references to a specific emotion or affect (i.e., intolerance, grouchiness, exasperation, sadness, psychological tension, touchiness, and frustration) were made in only one or two definitions.

Cognition

Cognition was referred to in only 3 of the 26 definitions. Craig et al., 2008 stated that irritability predisposes one to “certain cognitions (e.g., hostile appraisals),” and Digiuseppe (2007) stated that irritability occurs “without cognitive mediation.” The third described “cognitive” symptoms, but did not specify the kinds of cognitions one might experience.

Physiological

Only four definitions made any reference to physiological experiences (defined very broadly). Three referred to “tension,” and the fourth used the phrase, “a physiological emotional response” (Safer, 2009).
Qualifiers

Very early in the coding and analysis of the definitions, it became apparent that simply listing the behaviours, emotions, cognitions, and physiological references would not get at the essence of most of the definitions. These irritable experiences were almost always qualified or moderated in some way. Most often, the definition included a behaviour or emotion that was said to occur with minimum provocation, at a reduced threshold, or easily. Another common qualifier was a predisposition, proneness, readiness, or propensity toward an emotion, behaviour, or cognition. A qualification that stated the response was larger in intensity than would be expected (i.e., “extreme”, “excessive”, or “increased”) was also relatively common. Less common qualifiers included reduced control, a sudden escalation, developmentally inappropriate, and “impulsive, but not premeditated, aggression”.

Stability and Endurance

Some definitions made reference to the degree of stability or endurance of irritability. This was most commonly done by explicitly calling it a “state” or “mood” and thus implicitly defining it as a relatively temporary experience. Three definitions specified a minimum frequency. And two implied it was a trait (i.e., “stable tendency”, and a “disposition or tendency”).

Irritant

A number of definitions made reference to the source of the irritation. That is, irritability was defined as a response to or as sensitivity to a particular stimulant. The irritant itself was usually vague and simply an environmental/external stimuli.
emotional stimuli/events (4/26), a disagreement (2/26), an adverse stimuli (1/26), or an internal stimuli (1/26).

Other

A final “other” category was developed to include all the codes that were not included in the previous categories. These were each mentioned by only definition: “not cathartic”, “a complex structure”, “subjectively unpleasant”, and “mood may be present without observed manifestation”.

Study 2

Study 2: Method

Sampling, recruitment and data collection

A community sample was recruited from Guelph, Ontario and Kelowna, British Columbia. Participants were informed of the study via poster advertisements placed in a variety of public spaces. Participants were eligible if they were over the age of 18, were fluent in English, and had experienced irritability in the past two weeks. We adopted a purposive sampling strategy by first screening potential participants by telephone to achieve maximum variation with respect to age, sex, ethnicity, physical health, and mental health. A total of 39 (23 women) interviews were conducted in 2010. Table 1 provides a detailed description of the demographics. Sixteen participants reported at least one mental illness, including depression (n=10), bipolar disorder (n=4), schizophrenia (n=2), social anxiety (n=2), ADHD (n=2), and PTSD (n=1). Fifteen participants reported at least one physical condition, with the most common being chronic pain (n=9), diabetes (n=3), and arthritis (n=2). Hepatitis C, chronic fatigue syndrome, endometriosis, thyroid problem, heart condition, hypertension, sleep apnea, and permanent disability (cause unspecified) were reported by one participant, respectively.
The interviews were conducted by one of two trained undergraduate research assistants (one male and one female), and were audio-recorded for later transcription. Interviews lasted between 35 minutes and two hours. Participants were asked to describe what irritability means to them and to describe two or more recent personal experiences of perceived irritability. This study had ethical clearance from the University of Guelph and the University of British Columbia - Okanagan.

Analysis of interviews

A deductive thematic analysis was conducted (Braun & Clark, 2006). The interviews were transcribed verbatim and read several times to note the main issues. Two of the authors (PB and SH) met regularly to discuss these issues and agree upon the major categories. Research assistants tracked and sub-coded these categories within each interview using Nvivo 9 (QSR International, 2010). In this paper we focus on a subset of codes related to participants’ explicit definitions of irritability and their descriptions of the ways in which irritability was experienced.

Study 2: Findings

All participants made some attempt to provide an explicit definition; however, many found this difficult. Some stated their difficulty. “It’s hard to put in words.” (P-9). A few participants discursively displayed their difficulty by using a variation of the term irritability as the definition (e.g., P-13: “Irritation is um being easily irritated I guess.”). Others displayed their discursive difficulty by altering their definition over the course of the interview.

Contrary to the difficulty participants had in articulating an explicit definition of irritability, they displayed relative discursive ease describing instances of irritability. Analysis of the participants’ explicit definitions and experiential descriptions of irritability resulted in the
identification of two main themes: 1) *irritability and various negative affective states* and 2) *control*, as well as a number of subthemes.

**MAIN THEME 1: Irritability and various negative affective states**

This main theme captures the ways in which the participants discursively constructed relationships between irritability and various negative affective states (see Figure 1).

**SUB-THEME 1: Synonyms for irritability**

All of the participants equated the concept of *irritability* with at least one negative affective state. The most common synonyms were “*anger*”, “*frustration*” and “*annoyance*.” Many participants initially likened irritability to anger, but as the interview progressed they clarified what they meant by using adverbs (e.g., “*mild*” (anger)) and adverb phrases (e.g., “*less than violent*” (anger)) to downplay the volatile connotations. Adverbs were also used (to a lesser degree) with other synonyms (e.g., “*slightly*” (agitated)). In contrast to talk that downplayed synonyms for *irritability*, some of the negative affective states were inflated with adverbs to intensify their meaning (e.g., “*really*” (upset), “*intensely*” (agitated)).

**SUB-THEME 2: Placement of irritability on a continuum**

Many participants placed irritability on a continuum implicitly, “*irritability is a preparation to anger*” (P-23). However, several participants made more explicit references to a continuum.

(P-13) *Annoyed is different from irritability because it has no anger...you go from annoyed to irritable that has an anger component and then to full blown anger.*

In doing so, the participants presented irritability as having a specific place in a range of negative emotions. That is, there was an emotional process that took place in which these participants ‘worked up to’ an experience of irritability and, in some cases, moved past it.

**SUB-THEME 3: Cumulative emotional process**
The idea that irritability was a process was also apparent in participants’ descriptions of a cumulative effect. That is, small sources of irritation could build up to a more intense feeling. This process of building up to a higher level of intensity was sometimes described as the irritability and sometimes it was described as leading to the irritability.

(P-6):  *I guess I found that when I’m irritable, for me, that means I mean I’m likely to like go off eventually.... kind of like a little thing bugging you continuously until you finally blow up.*

**MAIN THEME 2: Control**

Participants’ talk about control in relation to irritability was pervasive in the data (almost 90% of the participants mentioned control; n=35/39).

**SUB-THEME 1: Feeling a loss of control over emotions**

Many participants said that they did not want to feel irritated, but they felt a loss of control over their emotions in some situations.

(P-38) *Like something really annoys irritates you and then it’s hard not to react. But you don’t want to react to it. You want to be calm, but if it’s something that really gets on your nerves it makes me feel really upset because I’m feeling really annoyed, yet I can’t, I don’t want to express it.*

In addition to specific talk about feeling a loss of control over their emotions, this loss of control was also apparent in participants talk about a proneness to feeling irritated and a lack of justification for feeling irritated. There were a number of reasons why participants believed they were prone to (and unable to control) feelings of irritability, such as physical (e.g., pain, diabetes) and mental (e.g., bipolar disorder, schizophrenia) health issues. In addition, some participants believed they could just be in a particular frame of mind that increased the likelihood of irritability. For example, several participants talked about having “one of those days” in which they were prone to feeling irritated at stimuli that would not usually bother them.
Also related to feeling a loss of control over irritability, participants frequently talked about feeling unjustified for becoming irritated. For example, P-10 said “I consider irritability times in which you get angry at things you shouldn’t get angry at.” In these instances of unwarranted irritability, participants often commented that they were unable to control their feelings. For example, P-12 talked about taking her elderly mother out to do errands and how those outings often resulted in feeling “irritated very quickly.” She emphasized the unjustified nature of her irritability by highlighting her mother’s good qualities and noting that her mother was not doing anything to provoke her irritability.

**SUB-THEME 2: Automatic physiological reactions**

All of the participants described some type of unpleasant physiological reaction associated with irritability, which was often automatic and perceived to be outside of their control. The physical sensations that the participants described were relatively homogenous: increased heart rate, a perceived rise in body temperature, a flushed face, a tightness or tension throughout the body, and a feeling of queasiness or nausea.

**SUB-THEME 3: Constraining the expression of irritability**

Participants’ descriptions of verbal and non-verbal behaviours associated with irritability ranged from subtle (e.g., being unusually quiet, frowning, eye squinting), to highly noticeable (e.g., throwing and/or breaking items, yelling, slamming doors). Some participants talked about thoughts of extreme physical reactions; however, they were quick to qualify their descriptions with a reassurance that they did not, and would not, act out their violent thoughts indicating that they were in control of their behaviour, if not their thoughts and feelings. Participants also stated that the way in which they expressed irritability varied depending on the context. Participants emphasized that social rules and norms in the workplace and public places dictate a high degree
of control over displays of irritability, whereas expressions of irritability were often more freely displayed in a familiar, private environment.

(P-13): You have to have a certain amount of restraint at work ...And so I can’t say, “Go away. You’re annoying the hell out of me right now”... so I’ll be a lot more restrained....

The difference in participants’ behavioural reactions to perceived irritants makes clear that participants are largely in control of their actions. The loss of control that has been emphasized in this theme so far is related to feeling irritated (emotionally and physiologically) in response to something that may not clearly justify that feeling.

SUB-THEME 4: Feeling a loss of control over the situation

The final way in which participants discussed control was in a loss of control over the source of the irritation. Participants described a variety of perceived external irritants that were beyond their control (e.g., traffic, a demanding boss). Further, some believed that their perceived loss of control contributed to their feelings of irritability and, to a lesser degree, their physical reaction.

(P-20): Maybe it’s a control thing...maybe it’s because I’m, I don’t have control over a situation. I like order, I like things to run in an orderly manner....It’s a situation where you don’t have any control over it, right. You’re there, you’re in the airport, there’s nowhere to go. ...... I think the irritability’s called by an outside... ...beyond your control.

Discussion

The construct of irritability is one that is not easily captured. This is apparent in both the varied definitions that have been used in the academic literature and in the discursive difficulty displayed by community participants when specifically asked to define it. Nevertheless, the current work provides direction for the increasing amount of research that is being done on irritability. There were common themes in both studies, but also a number of important differences that add to a fuller understanding of the construct. In this discussion we demonstrate
how we have used the results of both studies to build a new definition of irritability. We then consider how our definition relates to previous definitions and related constructs, and how it can be used in practice and to advance research in this area.

**Affect**

Both the academic definitions and the lay descriptions juxtapose irritability with a number of emotions/affect, but there is particular attention to anger. Anger was a component of most academic definitions, but the word “anger” was typically qualified in some way. Similarly, the community participants sometimes described irritability as anger but typically downplayed the experience as something less than anger. Anger is thus clearly important for an understanding of the construct of irritability, but anger is neither sufficient in describing it nor is it accurate in all cases. Sometimes irritability was experienced or defined in relation to something other than anger; most notably to similar constructs such annoyance and frustration, but occasionally to emotions that are very different (e.g., sadness and anxiety). A definition of irritability thus seems incomplete without acknowledging the relationship to anger, but it must be flexible enough to allow for varied experiences. In our definition we have followed the example of authors who have used general phrases such as “negative affect” (Smith et al., 1984), but we have also provided specific examples to help orient the reader.

**Outward Expression**

In the academic definitions, the behavioural expression of irritability was most often described as a form of aggression. Many described explosive outbursts, quick temper, or expressed anger, but none described violent aggression. Therefore, although the behaviour may be “explosive” it is implicitly constrained to some degree. This constraining was even more apparent in the lay descriptions, which makes clear that the outward expression may not always
occur, and when it does, its manifestation is extremely varied. As such our definition notes that the outward expression of irritability may occur, but does not make the behavioural component a dominant element.

**Process**

The lay participants’ talk made clear that irritability was experienced as a process. They often placed it on a continuum of affect, and talked about a cumulative emotional process in which a number of things could build up to the experience of irritability. In other words, the source of the irritability could be multiple factors and the proverbial “straw that breaks the camel’s back” could be rather small. This is key and helps explain why irritability can feel unjustified or disproportionate to the source. This is also somewhat at odds with academic definitions that used phrases such as “quick temper” (Caprara et al., 1985; Smith et al., 1984) and described behavioural “outbursts” (Stringaris, 2011; Snaith & Taylor, 1985). Our definition attempts to reconcile this by describing irritability as an emotional process.

**Control**

The experience of control was a dominant theme in the interviews. Participants explicitly described feeling a loss of control over their emotions, their physiological reactions, and over the situation, but often a very deliberate control of their behaviours. By contrast, the word control is used in only four academic definitions to describe a loss of control over temper (Born & Steiner, 1999; Snaith & Taylor, 1985), anger (Snaith et al., 1978; Elbe et al., 2012), and aggression (Elbe et al., 2012). However, when one looks closely at how participants described their lack of control over their irritability, there are some similarities between the two studies. For example, participants often described a proneness to feeling irritable, which was similar to
how some academic definitions qualified the experience of irritability as a predisposition, proneness, readiness, or propensity toward a particular emotion, behaviour, or cognition.

The main differences here are largely because the academic definitions take the perspective of a person observing someone else’s irritability (i.e., there was no just cause for the outward expression) and the participants’ descriptions take the perspective of someone experiencing irritability (i.e., who experiences difficulty controlling an emotional reaction that feels disproportionate to the immediate source). In hindsight, this is an obvious difference; however, it is not inconsequential. We believe that because previous academic definitions considered the experience from the observer’s perspective they have largely missed describing how control is a key element of the experience of irritability and have perhaps overestimated the importance of explosive outbursts and other overt behavioural manifestations while underestimating the extent to which behaviours are actually controlled. Our definition makes control explicit and we later discuss why this is important in the measurement and treatment of irritability.

**Source of Irritability**

Some of the academic definitions and many of the lay descriptions mention the source of the irritability, often pointing out that the source does not seem to justify the emotional reaction. When considering how to include the source of the irritability into a definition, we were very cognisant of the fact that simply including potential sources would be extremely judgemental. In addition, this would be inaccurate because as discussed above, the experience of irritability can be a cumulative process and the immediate source may only be one of many causing the experience of irritability. However, we wanted the definition to acknowledge that the immediate source often feels disproportionate to the individual’s experience of irritability.
Building a Definition of Irritability

The definition

In building this definition, we have paid special attention to the dominant results of both studies and have incorporated affect, outward expression, process, control, and source:

*Irritability is an emotional process that is characterized by a proneness to experience negative affective states, such as anger, annoyance, and frustration, which may or may not be outwardly expressed. Irritability often includes a feeling that one’s emotional responses are unjustified or disproportionate to the immediate source, but difficult to control.*

Relationship of our Definition to Previous Definitions of Irritability

The content analysis of published definitions of irritability informed the development of our definition. This strengthens our definition because it builds on a current academic understanding of the concept. As such, there are similarities in our definition compared to others, but there are also important points of departure. For example, the most common qualifier used in the academic definitions was that irritability occurs with minimum provocation. This is similar to the participant’s descriptions of feeling unjustified for their irritability and feeling a lack of control. We opted to use the language of feeling unjustified because this takes the perspective of the person experiencing the irritability. This also helps to distinguish irritability from anger, which is typically accompanied by the belief that one’s anger is justified and that some wrongdoing has occurred. Most academic definitions make reference to an aggressive behavioural expression of irritability. We opted to minimize the outward expression of irritability because our interview data suggested that behavioural outcomes were often constrained. This also helps avoid confusion with related constructs such as aggression.

The two most significant differences in our definition, compared to previous academic definitions, are that we have described irritability as a process and that it is perceived as difficult
to control. None of the definitions we reviewed use the word “process.” Yet, the participants we interviewed often spoke about irritability as a cumulative process that unfolds over time. The lack of the word “process” in previous definitions is telling, and we believe this may be related to a focus on the behavioural manifestation of irritability (which to the observer would seem to appear suddenly).

The idea that the affective experience of irritability is difficult to control is also a departure from previous definitions. One might argue that difficulty controlling one’s emotional experience is not unique to irritability, and that feeling a loss of control over one’s emotions may be more important in discriminating between clinical and non-clinical populations. However, our community sample was comprised of men and women with and without medical or psychiatric diagnoses. Across our entire sample, the notion that one should be able to control one’s feelings of irritability (i.e., because the experience itself is not warranted or justified), and that it is difficult to exert this control, was extremely common.

Related Constructs

Participants commonly used the word anger, but as we have argued, irritability was always downplayed as something less than anger. Our definition makes clear that anger might be an outcome of irritability, but that it is distinct from it. There are also a number of academic terms that are related to irritability, but that we believe are distinct from our proposed definition. For example, trait anger has been defined as, “a stable personality dimension of anger proneness or tendency to experience state anger” (Deffenbacher et al., 1996, p. 131). Similar to our definition, there is a proneness to anger, but we have not defined irritability as a trait and we have left open the possibility that irritability might make one prone to negative emotional experiences other than anger. Hostility is similarly described as a trait, and thus argued to be
Building a Definition of Irritability

different from irritability (Born & Steiner, 1999). Anger attack is also related and defined as, “a rapid onset of intense anger and a crescendo of autonomic arousal that occur upon provocation described as trivial by the individual” (Mammen, Shear, Pilkonis, Kolko, Thase, & Greeno, 1999, p.633). A key difference between anger attack and our definition of irritability is that the experience of irritability is not necessarily rapid. In fact, we have emphasized how the experience can build quite slowly. We also opted not to include physiological experiences in our definition. These were rarely included in the academic definitions, and although study participants gave accounts of their physiological responses, these were almost always in response to direct questioning and not spontaneous descriptions.

Application and Future Research

By integrating both academic and lay perspectives, we believe that our definition will facilitate further research and provide a better understanding of irritability for health practitioners. In particular, our inclusion of control is novel, opens up new questions for research, and points to a potential clinical focus. For example, studies could explore whether people who have a high need for control experience more irritability, and examine factors that help some people control their irritability better than others. Clinically speaking, therapists could address the extent to which clients’ perceive their irritability to be beyond their control. Mindfulness- and acceptance-based approaches, which cultivate feelings of awareness, acceptance and non-judgement, may be particularly beneficial in this regard (Baer, 2003; Hayes, Levin, Plumb-Vilardaga, Villatte, & Pistorello, 2013).

Although a lack of control was commonly reported as a cause of irritability in our community sample, our initial micro coding resulted in over 200 different sources for irritability. With so many different sources, it is possible that people are either not very good at identifying
Building a Definition of Irritability

the “real” cause of their irritability or almost anything can be a source of irritability. Interestingly, this parallels the lack of clarity in the scientific literature regarding what causes irritability. In a clinical context, it may be helpful for clients to identify patterns in the sources of their irritability. Emerging research does support participants’ reports that irritability is sometimes caused by an underlying medical or psychiatric condition, and there is a pressing need to better understand the biological underpinnings of this process and how social experiences interact with the biological.

Differences between academic and lay descriptions of irritability emphasize that irritability can appear different from a self or other perspective. This is consistent with studies suggesting a lack of congruence between self-reported irritability and ‘other-rater’ reports (eYang et al., 2012) and indicates the importance of obtaining self-report and observer reports in clinical practice. Our findings also suggest the need for qualitative studies that ask participants to describe and compare different affective experiences, such as irritability and anger.

Lastly, future research might also explore how gender roles predict feelings of irritability and whether irritability is perceived differently when it is expressed by a man versus a woman. Our definition applies equally to men and women, which is important because recent work on the development of a scale for irritability suggests that irritability is experienced similarly by men and women (Holtzman, O’Connor, Barata, Stewart, 2014). However, although the experience may be similar, it is possible that men and women may attribute their irritability to different sources or express irritability differently because of their gender roles.

Limitations

Our definition has downplayed the importance of the behavioural expression of irritability largely because the lay participants made clear that they often constrained their
behaviour when experiencing irritability. However, it is possible that people underestimate how well they actually constrained their behaviour and/or deliberately left out behaviour that may be unflattering. Nevertheless, our definition leaves open the possibility that observable behaviour is displayed during the experience of irritability. Our analysis of control within the experience of irritability developed slowly and it was not until the interviews and analyses were complete that the authors fully appreciated the importance of control. As such we did not ask the participants specific questions about control and this will need to be more fully explored in future work.

We also point out that our qualitative interviews were conducted with predominantly Caucasian participants and that the academic definitions of irritability have, almost exclusively, been proposed by researchers at North American and Western European institutions. The role of social and cultural factors in the experience and expression of irritability needs further exploration. Our community sample of adults also limits our definition. Levels of irritability have been documented among infants, children, and adolescents and a lifespan approach to studying irritability would be most appropriate as the field moves forward.

**Conclusion**

The construct of irritability is increasingly emerging as clinically relevant in a number of physical and mental health conditions, but it is important to keep in mind that the experience of irritability is in itself a normal and common experience, and it may even prove to have positive outcomes. Difficulty defining irritability, reflected in the different definitions that have been proposed in the literature as well as participants difficultly expressing a personal definition, demonstrates that it is not an easy construct pin down. Our definition is comprehensive, but concise and incorporates both the academic work in this area and a lay perspective. It should be
of use to both researchers and practitioners who are working to further understand the causes and consequences of irritability, and we hope that it also sparks new ideas in this burgeoning field.
Acknowledgements

The authors would like to thank the research assistants on this project: Mr. Joel Badali, Mr. Tom Beggs, Ms. Monica Ghabrial, Ms. Raquel Graham, Ms. Lisa Landis, Ms. Ingrid Osland, Ms. Erica Chow, and Ms. Kara Turcotte. This project was funded by a Canadian Institutes of Health Research (CIHR) Catalyst Grant.
References


*Caprara, G. V., Renzi, P., D'Imperio, G. D., & Travaglia, G. (1983). Instigation to aggress and escalation of aggression examined from a personological perspective: The role of

---

² Asterisk indicates a reference that was used in the content analysis of study 1.


Building a Definition of Irritability


Building a Definition of Irritability


Figure Captions

Figure 1: Relationship Between Irritability and Various Negative Affective States
Table 1: Participant Demographics (N=39)

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>% of total N</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Age</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>19-29</td>
<td>14</td>
<td>35.8</td>
</tr>
<tr>
<td>30s</td>
<td>8</td>
<td>20.5</td>
</tr>
<tr>
<td>40s</td>
<td>6</td>
<td>15.4</td>
</tr>
<tr>
<td>50s</td>
<td>7</td>
<td>17.9</td>
</tr>
<tr>
<td>60s</td>
<td>4</td>
<td>10.3</td>
</tr>
<tr>
<td><strong>Relationship status</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Single</td>
<td>17</td>
<td>43.6</td>
</tr>
<tr>
<td>Married/common law</td>
<td>13</td>
<td>33.3</td>
</tr>
<tr>
<td>Separate/divorced</td>
<td>5</td>
<td>12.8</td>
</tr>
<tr>
<td>Widowed</td>
<td>2</td>
<td>5.1</td>
</tr>
<tr>
<td>Other</td>
<td>2</td>
<td>5.1</td>
</tr>
<tr>
<td><strong>Number of children</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0</td>
<td>25</td>
<td>64.1</td>
</tr>
<tr>
<td>1-2</td>
<td>9</td>
<td>23.1</td>
</tr>
<tr>
<td>3-4</td>
<td>4</td>
<td>10.3</td>
</tr>
<tr>
<td><strong>Employment</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Part-time employment</td>
<td>14</td>
<td>35.8</td>
</tr>
<tr>
<td>Full-time employment</td>
<td>8</td>
<td>20.5</td>
</tr>
<tr>
<td>On medical leave/disability</td>
<td>6</td>
<td>15.4</td>
</tr>
<tr>
<td>Student</td>
<td>6</td>
<td>15.4</td>
</tr>
<tr>
<td>Retired</td>
<td>4</td>
<td>10.3</td>
</tr>
<tr>
<td><strong>Ethnicity</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>European (White)</td>
<td>29</td>
<td>74.4</td>
</tr>
<tr>
<td>First Nations</td>
<td>2</td>
<td>5.1</td>
</tr>
<tr>
<td>South Asian</td>
<td>1</td>
<td>2.6</td>
</tr>
<tr>
<td>Other</td>
<td>6</td>
<td>15.4</td>
</tr>
<tr>
<td><strong>Sexual orientation</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Heterosexual</td>
<td>38</td>
<td>97.4</td>
</tr>
<tr>
<td>Gay/Lesbian</td>
<td>1</td>
<td>2.6</td>
</tr>
<tr>
<td><strong>Education</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Some high school</td>
<td>5</td>
<td>12.8</td>
</tr>
<tr>
<td>Graduated from high school (12/13)</td>
<td>4</td>
<td>10.3</td>
</tr>
<tr>
<td>Some college/university</td>
<td>15</td>
<td>38.5</td>
</tr>
<tr>
<td>College/university degree</td>
<td>12</td>
<td>30.8</td>
</tr>
<tr>
<td>Graduate degree</td>
<td>3</td>
<td>7.7</td>
</tr>
<tr>
<td><strong>Income</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0-19,999</td>
<td>20</td>
<td>51.3</td>
</tr>
<tr>
<td>20,000-39,999</td>
<td>7</td>
<td>17.9</td>
</tr>
<tr>
<td>40,000-59,999</td>
<td>10</td>
<td>25.6</td>
</tr>
<tr>
<td>60,000-79,999</td>
<td>1</td>
<td>2.6</td>
</tr>
</tbody>
</table>

*One participant did not respond.*