



# Should we be teaching researchers humility?

Literature review and reflection

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# Should we be teaching researchers humility?

## Literature review and reflection

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Recent research focusing on academic health system partnerships has identified common stakeholder concern about lack of researcher humility in working with health system personnel.<sup>1</sup> Increasing research on, and interest in, the benefits of humility have led to calls not only for researchers to develop greater humility, but also the suggestion that educational programs should be developed to promote it. The purpose of this paper is to explore current understanding of the concept of humility, highlight research on the topic and identify issues that should be considered in any explorations of educational interventions.

### THE CONCEPT OF HUMILITY

Humility is a concept with deep roots in various philosophical and religious traditions. In recent years it has also gained attention from the psychology community (notably the positive psychology movement),<sup>2</sup> and there is emerging interest from the field of organizational scholarship.<sup>3-5</sup> There has also been some coverage of humility from a health-care improvement perspective.<sup>6</sup> While the topic has not, until recently, received much research attention, the rise in societal concern about religious and political intolerance has contributed to an increase in both research on humility and the number of research teams addressing the concept.<sup>7,8</sup>

This diversity in conceptual roots and perspectives has resulted in a lack of consensus on definitions of humility, which is variously understood as a trait, a skill, a developmental achievement or a virtue.<sup>9</sup> Intellectual humility is generally considered a subdivision of the general concept of humility.<sup>10,11</sup> While general humility is based on perceptions of the self, intellectual humility is specifically related to perceptions of one's own knowledge, beliefs and ideas.<sup>9</sup> Intellectual humility is considered one of the intellectual virtues, along with other perceived virtues, such as open-mindedness,<sup>12</sup> intellectual courage and integrity, and it is contrasted to intellectual vices, such as pride and arrogance. Intellectual virtues are those that contribute to intellectual excellence.<sup>13</sup>

While some conceptualizations of humility are based on definitions that emphasize devaluing of the self (and would define intellectual humility as the opposite of intellectual arrogance), other definitions identify the opposite of intellectual arrogance as intellectual *servility*, not intellectual humility.<sup>14</sup> Rather, an intellectually humble person values her conclusions as they should be; she is neither over-confident nor under-confident in her abilities and knowledge.<sup>10</sup> These more recent definitions stress the need not only for an accurate assessment of one's intellectual strengths and limitations, but also appreciation of the strengths and contributions of others and the ability to negotiate ideas in a fair and inoffensive manner.<sup>3,10,14,15</sup>

Discussion of intellectual humility generally flows from work in *virtue epistemology*, which in turn builds on the long tradition of virtue ethics.<sup>13</sup> Epistemology (the branch of philosophy concerned with the theory of knowledge, the nature of knowledge, justification and the rationality of belief) addresses such questions as: "What makes beliefs justified?", "What does it mean to say that we know something?" and fundamentally "How do we know that we know?" Although many researchers are not exposed to various epistemological traditions, these questions about the nature of knowledge are at the heart of research: research is, in essence, about the search for knowledge. As distinct from other approaches to epistemology, virtue epistemology focuses on the *agent* (what makes a virtuous person?), rather than beliefs or actions. Within the field of virtue epistemology, virtue *reliabilists* believe that intellectual virtues are reliable cognitive faculties; virtue *responsibilists* view these virtues as acquired character traits.<sup>11</sup>

Definitions also vary on their focus on *intrapersonal* (a person's view of self) as opposed to *expressed* humility (patterns of behaviour that are observable by others).<sup>3,16</sup> Some propose that humility is a "higher order" or "master" virtue – a virtue that, when practiced, fosters development of other virtues.<sup>17,18</sup>

## RESEARCH ON HUMILITY

Research on humility is relatively recent, as research has been limited by a broad range of conceptual and methodological challenges<sup>16</sup>: issues of definition, measurement and promotion are only now being explored.<sup>19</sup> Humility is understood as both a *moral* and an *epistemic* virtue,<sup>2</sup> and there are questions as to whether intellectual humility is distinguishable from more general, global measures of humility.<sup>20</sup> There is considerable variation in conceptualizations of the concept across studies: some definitions are contradictory,<sup>21</sup> and consideration of whether there could be a "dark side" to humility (as is recognized in many philosophical and theological traditions) is often lacking.<sup>22</sup>

There is not consensus on whether humility can be differentiated from closely related constructs, such as open-mindedness, that involve a general tendency not to be unjustifiably certain of one's beliefs.<sup>16,19,20,23,24</sup>

Nor is there agreement on how to measure humility: four common approaches used are self-reports, implicit measures,<sup>25</sup> social comparisons of self to others and informant ratings of humility,<sup>16</sup> all of which bring recognized problems.<sup>20,26</sup> A number of different scales for humility have been developed in recent years<sup>14,23,27–29</sup>: a recent paper provided a review of 22 different measures.<sup>30</sup>

Although, to date, there has been limited empirical research on intellectual humility (a 2017 review found only six empirical studies<sup>9</sup>), the available research indicates that humility is related both to prosocial values (e.g., empathy, altruism, benevolence, tolerance of others, co-operation, honesty)<sup>2,5,9</sup> and to learning (i.e., being a "good knower").<sup>9</sup> For example, intellectual humility has been associated with greater curiosity and sensitivity to the strength of an argument<sup>24</sup>; cognitive flexibility and intelligence<sup>31</sup>; likelihood of actively seeking out new information from opposing points of view<sup>15</sup>; and performance on memory tasks.<sup>32</sup>

## HUMILITY FROM OTHER PERSPECTIVES

### Cultural humility

Calls for cultural humility have increased since the germinal work of Tervalon and Murray-Garcia,<sup>33</sup> which critiqued the dominant discourse of the time – a call for health providers to develop *cultural competence*. The cultural competence approach is based on an assumption of mastery of a finite set of skills – which fits well within the medical training model. However, as the critics of cultural competence point out, creating “experts” on the cultures of others further disempowers them, and there are limitations in viewing cultural competence simply as “skill” development.

Although some authors consider cultural humility as a subdomain of humility, little work has examined the relationship between the two concepts.<sup>34</sup> The literature on cultural humility appears, however, to have direct applicability to the question we are considering here. First, it has long been proposed that academia and health care represent different cultures, practices and values. Second, many authors have framed misunderstandings and tensions between researchers and the health-care system as cultural differences between the two groups.<sup>35</sup> In addition, calls for greater cultural awareness and responsiveness have led to a wide range of diversity educational interventions, particularly in the health-care and organizational management fields: there is much we can learn from these initiatives.

### Promoting collaborative research approaches

It is also useful to explore the role of humility in initiatives to promote greater collaboration between researchers, communities and health organizations.

Various participatory action research (PAR) approaches include explicit commitment to cultural humility as a core concept.<sup>36</sup> More broadly, such approaches challenge what are recognized as common attitudes of researcher “superiority.” There is an emphasis on researcher humility, respect and power sharing.

Traditionally, much participatory action research (particularly community-based participatory research) has focused on grassroots (often underserved and disempowered) communities: this has sometimes limited perceived applicability to researcher relationships with health systems. Some of the focus has, therefore, been on the challenges of what has been called “researching down.”<sup>37</sup> In contrast, much health services research involves researcher relationships with well-established power structures and high-status individuals (“researching up” in the case of trainees and junior researchers; “researching across” for some senior researchers).<sup>37–39</sup> We cannot assume that ethical and logistical processes established to protect vulnerable communities are useful or needed in relationships with those in powerful positions.

As much current discussion of humility within health services research has emerged from knowledge translation (KT) and implementation science, it is important to consider the impact of these movements on our understanding of humility. *Integrated* knowledge translation (IKT), which shares many characteristics with other participatory approaches,<sup>40,41</sup> has promoted both greater academic/health system collaboration and research on the benefits of such collaboration. While the IKT commitment to mutual learning<sup>42</sup> should promote greater humility, the emphasis on research

use may counter efforts to promote humility, especially in an environment where it is often necessary to highlight what is unique and exceptional in one's work.<sup>43</sup> Indeed, a recent review of web resources determined that most KT resources continue to focus simply on strategies to improve communication of research results rather than partnership development.<sup>44</sup> In addition, while in IKT researchers are required to work in collaboration with those in the health system, there is not a requirement that the research address questions of *societal* priority.

Engaged scholarship, while sharing many of the same characteristics as community-based participatory research (CPBR), differs from it in a few critical ways. These differences suggest that engaged scholarship may be a more useful concept for our discussion of researcher humility than CBPR. It should be noted, however, that many of the advocates for engaged scholarship have a background within CBPR: the principles and values are similar. The roots of engaged scholarship can be found in the work of Ernest Boyer, who defined the scholarship of engagement as “connecting the rich resources of the university to our most pressing social, civic and ethical problems.”<sup>45</sup> The emphasis on responding to issues of societal concern differentiate it from some similar collaborative approaches. While we might assume that collaborative research in the field of health is well-intentioned, it is possible to imagine cases where resources were directed towards questions that were not necessarily in the best interests of the *public*. In this way, engaged scholarship reframes the “rigour versus relevance” debate by focusing not only on what is relevant to specific knowledge users, but more broadly on what is relevant – and useful – to society at large. It also requires a form of researcher humility in order to be responsive to societal priorities over one's individual interest. Another useful concept from the field of engaged scholarship potentially relevant to our discussion of humility is the concept of arbitrage. Van de ven and Johnson describe arbitrage as representing “a dialectical method of inquiry where understanding and synthesis of a common problem evolve from the confrontation of divergent theses and antitheses.”<sup>46</sup> Greater knowledge is seen to emerge when diverse areas of expertise come together – and are valued.

## **WHAT DO WE KNOW ABOUT THE BEST STRATEGIES FOR PROMOTING HUMILITY?**

A major area of application of humility research is to determine how humility can best be fostered. However, there is no consensus on whether intellectual humility is a skill, a virtue or both,<sup>47</sup> resulting in diverse opinions on whether humility, or intellectual humility, can be taught. There is also a limited evidence base for guidance on addressing this question.

A long tradition of “moral,” “values” or “character” education has focused largely on children (or those with a particular interest in moral development). A review of effective strategies suggests some actions that may have applicability to adult education.<sup>48</sup> However, moral education has not been demonstrated to have a strong influence on students, and some authors suggest that less emphasis should be placed on explicit moral education, with more covert embedding of evidence-based values learning practices into schools' existing environments and curricula. It is also suggested that schools focus on a few “master” virtues, including humility.<sup>49</sup>

While a few initiatives to teach humility have been trialed at the undergraduate level, there is insufficient evidence on any particular intervention to confidently suggest interventions that may be effective for researcher education. One study using a workbook intervention was reported to result in

a measurable improvement in humility scales.<sup>17</sup> However, a quasi-experimental study designed to assess the extent to which explicitly teaching undergraduate students about concepts related to intellectual humility within a class curriculum can produce changes in thinking and communication, produced mixed results (no change was observed in self-reported intellectual humility, and students did not appear to become more discriminating in detecting it).<sup>34</sup>

While some argue that intellectual humility (like other intellectual virtues) is intimately connected to “good” thinking and is, therefore, a worthy educational aim<sup>50,51</sup>; others suggest that different strategies are required for consensus-reaching (e.g., sciences) as opposed to non-consensus-reaching (e.g., humanities) disciplines.<sup>51</sup> This has important implications for health services research, which relies on both qualitative and quantitative methodologies.

Some argue against a virtues-based approach, proposing instead a focus on teaching *critical thinking*.<sup>52</sup> This perspective proposes that the intellectual virtues approach does not have a suitably effective pedagogy – it is not action-oriented.<sup>53</sup> However, there is no consensus on this issue, as others argue that discussions of critical thinking often omit consideration of the critical thinking mindsets or “dispositions” that can create the conditions for students to adopt the best cognitive moves in meaningful and lasting ways.<sup>54</sup>

Baehr summarizes and responds to three arguments against attempting to teach intellectual virtues. In addition to the argument about whether virtues are indeed teachable, he addresses concerns about effectiveness and cost, identifying a number of key factors (including who is undertaking the initiative, at what development level the intervention is aimed, the quality of the intervention, timeframe and expected magnitude and scope of impact) that would predict the likelihood of success of such ventures.<sup>50</sup> For example, he suggests that interventions that are undertaken by only one or a few individuals, that are short and/or of indifferent quality, and that occur later in the educational process, will be less effective. His analysis, consistent with some of the evaluation of diversity initiatives, raises cautions about how best to design specific interventions to promote intellectual humility.

We may benefit from exploring findings on impact of diversity initiatives. Reviews of diversity education, one strategy to increase cultural responsiveness, find huge variation in effects<sup>55</sup>: some approaches can even backfire, resulting in greater stereotyping and discrimination. Reviews of such training initiatives emphasize the importance of context (where the training is situated, and how it is positioned and reinforced) and the relationship between these interventions and other complementary initiatives. As was found with diversity training, there is some evidence that efforts to foster humility will be most useful when such initiatives are integrated and embedded rather than standalone and time-limited. The quality of the intervention is also critical.<sup>55</sup>

## **CONSIDERATIONS FOR MOVING FORWARD**

This review of the literature suggests that there is not clear direction for how best to foster humility among researchers and research trainees. I suggest that it does, however, identify important issues for consideration, as we respond to recent interest in better preparing researchers to approach research interactions with humility.

### Humility or intellectual humility?

Much academic attention on humility has focused specifically on intellectual humility. Certainly, it is appropriate that institutions of higher learning attend to the epistemic features of humility. Our research indicates, however, that it is not only demonstration of intellectual humility that is of interest to research partners, but also general humility. Clarity of thinking and open-mindedness are not sufficient: it is important that researchers do not bring of view of themselves as superior or elite – there is an expectation that “they arrive with humility.”<sup>1</sup>

### A virtue or a competence?

Suggested competencies related to intellectual humility have been developed.<sup>52</sup> But are there risks in adopting a competency approach? What can we learn from other initiatives that have roots in religious and philosophical traditions and have become popularized and promoted? Work in the subfield of cultural competency and humility suggests that there are very real risks in approaching values-based learning in this way.<sup>33</sup> Another relevant example may be mindfulness training, with its roots in spiritual tradition. Once popularized, “mindfulness” became divorced from its moral and ethical roots and “instrumentalized” for the marketplace. This has resulted in some applications that would be antithetical to the intent of those initially promoting mindfulness (e.g., mindfulness training for military personnel to help them become better snipers).<sup>56</sup>

### Individual or system focus?

The limited research on strategies for fostering humility suggests that effectiveness in this area may share some of the same characteristics as interventions in a number of other areas – from diversity training to promotion of patient safety. It is likely of more benefit to look at how best to structure the environment to both model and reward behaviour that demonstrates humility, rather than attempt to teach individuals these attitudes and skills. If we believe that respect and openness to learning from other approaches and perspectives is of value, how do we change the *system* to support this? As we have learned through patient safety initiatives, we need to make the *right* thing to do the *easy* thing to do.

We could prioritize changes to the academic program (e.g., exposure to different “ways of knowing,” developing communication and negotiation skills, modelling respectful interaction within the academy, prioritizing health service research studies that are driven by decision-maker priorities). We could work to ensure that those who do “act with humility” and are valued by community partners are recognized and rewarded, both within the academy and through research funding processes. At present, academic processes do not reward – and may even penalize – behaviour that is not sufficiently self-promoting.<sup>57</sup>

That is not to say that there would be no benefit in teaching interventions designed to support students in developing intellectual humility and to learn about concepts related to humility: given the importance of expressed humility to research partnerships, greater investigation of these strategies could be beneficial. Promising strategies include integration of the teaching of virtues throughout professional curricula<sup>58</sup>; promoting and demonstrating reflectiveness<sup>51</sup>; exposure to different ways of knowing (e.g., interdisciplinary, multimethod approaches)<sup>51</sup>; and teaching critical thinking.<sup>52</sup>



## A partnership approach

It is also important to recognize the benefits of greater humility are not limited to academics. Organizations, including health organizations, have the potential to reap important benefits for individual health leaders and staff and for improved team functioning and organizational performance.<sup>3–5,59</sup> While our work has focused on the question of academic humility and arrogance, health care itself suffers from the results of competing medical and administrative hierarchies.<sup>60</sup> Interventions should consider the roles of all partners.

Many initiatives support and promote humility either directly or indirectly. For example, many health research funders promote interdisciplinary or collaborative research approaches – these are partnership approaches that imply a willingness to recognize the strengths of, and learn from, others: a foundational aspect of humility. It is essential to ensure that such activities move beyond simply articulating aspirational aims of partnership and create processes and structures that reflect what is known about effective strategies to create and maintain effective partnerships. We have good evidence on practices associated with respectful collaboration and could do more both to model these practices throughout the educational process, and to undertake the institutional change necessary to ensure that respectful partnering skills are recognized in academic recognition systems. Similarly, research funding agencies could adapt processes to better support authentic partnership (e.g., by providing funding opportunities that reflect the decision-making timelines of the health system); develop more effective strategies for assessing the quality of proposed research partnerships (e.g., ensuring that review panels have the skills to appropriately assess the authenticity of proposed partnerships); and implement mechanisms that hold grant holders accountable for the quality of partnership activities.

## SUMMARY

There is good evidence of the potential benefits, not only to the health system but to researchers themselves, from increased humility within professional research relationships. There is, however, less guidance on how best to promote greater researcher humility.

It is useful to reflect on the reason for the interest in promoting researcher humility. I suggest that this is because humility is seen as a characteristic that is associated with mutual learning and responsiveness – resulting in more productive research partnerships. But while humility can be *learned* – and we can provide environments that foster this learning – it is not at all clear that it can be *taught*.

Interventions at the individual level are unlikely to have as much impact as systemic changes to ensure that the measurable behaviours associated with humility are both promoted and rewarded. Rather than attempting to teach humility, it is likely of greater benefit to look at how we can affect change within the academic, health and research funding systems to support authentic and meaningful partnerships.

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## FURTHER READING

This report was originally produced for the *Building and Managing Effective Partnerships in Canadian Health Research* project (Ingrid Botting, project lead), which was funded by the Integrated Knowledge Translation Research Network.

There are four other publications associated with this project:

- Bowen S, Botting I, Graham ID, The Building and Managing Effective Partnerships in Canadian Health Research Research/Advisory Team. [Re-imagining health research partnership in a post-COVID world: a response to recent commentaries](#). *Int J Health Policy Manag*. 2020. doi:10.34172/ijhpm.2020.69
- Cassidy C, Bowen S, Fontaine G, Côté-Boileau E, Botting I. [How to work collaboratively within the health system: workshop summary and facilitator reflection](#). *Int J Health Policy Manag*. 2020;9(6):233-239. doi:10.15171/ijhpm.2019.131.
- Bowen S, Botting I, Graham ID, MacLeod M, de Moissac D, Harlos K, et al. [Experience of health leadership in partnering with university-based researchers in Canada – a call to “re-imagine” research](#). *Int J Health Policy Manag*. 2019;8(12):684–699. doi:10.15171/ijhpm.2019.66
- de Moissac D, Bowen S, Botting I, Graham ID, MacLeod M, Harlos K, et al. [Evidence of commitment to health research partnerships? Results of two web reviews](#). *Health Res Policy and Syst*. 2019;17(1):73. doi:10.1186/s12961-019-0475-5

