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In selecting measures for a comprehensive assessment of well-being, it is essential to include indicators of psychological need satisfaction

Frank Martela [a,*], Richard M. Ryan [b]

[a] Department of Industrial Engineering and Management, Aalto University, P.O. Box 15500, 00076 Aalto, Finland
[b] Institute for Positive Psychology and Education, Australian Catholic University, 33 Berry Street, Level 9, North Sydney, NSW 2060 Australia

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ABSTRACT

Human well-being is an important goal in both policy contexts and in health care, while also predicting various health-related outcomes. However, the proliferation of conceptions of well-being has become a major obstacle for the progress of a comparable and cumulative science of well-being, leading to a need to reach consensus on the key dimensions and indicators to be measured as part of human well-being. While attempts at consensus have been made, we see that the currently suggested dimensions need to be complemented by the inclusion of indicators for basic psychological needs, as need satisfaction is a crucial dimension of human wellness, flourishing, and more eudaimonic conceptions of well-being. In particular, we argue that the inclusion of the three psychological needs as proposed by Self-Determination Theory – autonomy, competence, and relatedness – would provide a parsimonious set of indicators of key elements of experienced well-being deeply rooted in human nature, and thus measuring them alongside other dimensions would offer a broader view of psychological wellness in policy and health care contexts.

1. Introduction

Human well-being – understood broadly as feeling, doing, and functioning well in life – has been increasingly recognized as a key target in both politics and policy contexts as well as in health care and promotion of mental health (Keyes, 2007; OECD, 2013; Prilleltensky, 2005; Ryff et al., 2004). Research has also demonstrated how human well-being is a key predictor of various health-related outcomes, including longevity (Cohen et al., 2016; Howell et al., 2007; Lyubomirsky et al., 2005; Martín-María et al., 2017). The recognition of well-being as important both as an outcome and as a predictor of other health-related factors has made the accurate measurement of well-being a crucial issue in health care (VanderWeele et al. 2020).

However, the expanding number of conceptions of well-being that measure an increasingly wide array of disparate components is a major obstacle for the progress of a comparable and cumulative science of well-being (Lindert et al., 2015; Linton et al., 2016; Martela and Sheldon, 2019). Tens of different conceptualizations of well-being exist, with the associated measures sometimes having almost no overlap at all (Cooke et al., 2016; Martela and Sheldon, 2019). In an attempt to transcend this untenable situation, VanderWeele et al. (2020) recently synthesized the field to provide recommendations on what constructs of well-being should be measured, and how to measure them. The key constructs they recommend to be measured include evaluative well-being (life satisfaction) and emotional well-being (positive and negative affect) as well as broader constructs such as eudaimonic well-being and human flourishing. Finding such synthesis is crucially important to ensure that measures of well-being in various context are comparable and contribute to an accumulating body of knowledge about the antecedents and outcomes of human well-being.

In this spirit, we want to complement the set of recommendations by VanderWeele et al. (2020) by arguing that there is a crucial aspect missing from the dimensions of well-being that they recommend to measure: Human psychological needs. Humans are biologically and psychologically constructed such that there are specifiable experiences that all people require in order to survive, thrive, and function well (Doyal and Gough, 1991; Pittman and Zeigler, 2007; Ryan and Deci, 2017). While all organisms have certain *physiological* needs such as the need for water and hydration, the complex cognitive capacity of humans means that they also have certain *psychological* needs required for healthy psychological development, growth, integrity, and well-being. Accordingly, a long line of research within psychology has aimed to

* Corresponding author.
E-mail addresses: frank.martela@aalto.fi (F. Martela), richard.ryan@acu.edu.au (R.M. Ryan).

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identify those universal psychological needs that are essential for the psychological health and well-being of the person (Alderfer, 1972; Baumeister and Leary, 1995; Deci and Ryan, 2000; Maslow, 1954; McClelland, 1985; Murray, 1938). This has led to a broad agreement around certain needs, especially for the psychological need for relatedness or belonging (Alderfer, 1972; Baumeister and Leary, 1995; Maslow, 1954; McClelland, 1985; Ryan, 1995), for competence or efficacy (Bandura, 1977; Ryan and Moller, 2017; White, 1959), and, at least in some perspectives, for autonomy (Doyal and Gough, 1991; Ryan and Deci, 2017; Yu et al., 2018).

These needs have been especially researched within *Self-Determination Theory* (SDT; Ryan and Deci, 2017; Deci and Ryan, 2000), where their importance for well-being has been demonstrated in literally hundreds of empirical studies conducted by many independent research groups around the world (reviewed in Ryan and Deci, 2017; Vansteenkiste et al., 2020) and in contexts ranging from education (e.g., Jang et al., 2016) and sports coaching (e.g., Curran et al., 2016) to work (Van den Broeck et al., 2016). A *meta*-analysis in the health care and health promotion context alone identified 184 studies examining SDT and basic psychological needs (Ng et al., 2012). According to SDT, autonomy is about a sense of volition and an internal locus of causality, competence is about a sense of mastery, effectance and efficacy, and relatedness is about a sense of having caring relationships in one's life.

VanderWeele et al. (2020, p. 3) emphasize that a comprehensive understanding of well-being requires the "assessment of multiple aspects of psychological well-being." We agree, and see that it is crucially important to measure psychological needs, for a more complete understanding of the person's psychological situation and well-being. Although positive and negative affect and general life evaluations can serve as prime indicators of whether a person is feeling well, the assessment of psychological needs gives us knowledge on *why* the person is feeling well (Martela and Sheldon, 2019; Ryan, Huta and Deci, 2008). The psychological needs function as essential "nutrients" humans need from the environment to experience well-being, thus typically mediating the influence of various behavioral strategies and environmental factors on subjective well-being (Deci and Ryan, 2000; Martela and Sheldon, 2019). Measuring psychological needs thus gives a richer view of the person's psychological functioning and what makes them feel well.

The inclusion of psychological needs is especially important when the aim is to measure human flourishing, defined as complete human well-being where "all aspects of a person's life are good" (VanderWeele, 2017, p. 8149). It is hard to see how a person could be flourishing if one's basic psychological needs are thwarted. A complete state of psychological well-being seems impossible without the satisfaction of one's psychological needs. Indeed, perspectives on flourishing have often explicitly drawn from theories of psychological needs when choosing what dimensions to include in their assessments of flourishing (e.g., Diener et al., 2010). Further, given that any element of flourishing should be viewed as an end in itself and nearly universally desired (VanderWeele, 2017), it is worth noting that "values associated with autonomy, relatedness, and competence show a universal pattern of high importance and high consensus" according to a cross-cultural study of values including 60 different countries (Fischer and Schwartz, 2011, p. 1127), demonstrating that these three basic psychological needs are something people across cultures value.

The psychological needs are also central, when an often recommended distinction is made between hedonic, evaluative, and eudaimonic conceptions of well-being (Graham et al., 2018; National Research Council, 2013; OECD, 2013; Steptoe et al., 2015; VanderWeele et al., 2020). While hedonic and evaluative conceptions are relatively well understood, eudaimonia is still "less well fleshed out" (OECD, 2013, p. 32) and vague, lacking required unification (Heintzelman, 2018; Huta and Waterman, 2014). Accordingly, it has been argued that psychological needs could provide the "common core" for the eudaimonic indicators of well-being (Martela and Sheldon, 2019, p. 459), providing a parsimonious set of indicators about key aspects of eudaimonia. Here eudaimonia is understood as being fundamentally about *functioning well* rather than just *feeling well* (Huta and Ryan, 2010; Ryan and Martela, 2016). Instead of seeing hedonia and eudaimonia as two different types of feelings, this stream of research sees eudaimonia as being about the key motives, activities, and functioning that *lead to* subjective well-being. In other words, eudaimonic activities and functioning should be seen as key antecedents of indicators of feeling well. And as regards psychological functioning, psychological need satisfaction should be seen as the core of such functioning (Martela and Sheldon, 2019). Thus, we see that indicators of eudaimonia that tend to focus on meaning and purpose (which are outcomes of need satisfaction, see Martela et al., 2018), should be complemented with ways to assess psychological need satisfaction.

There are several theories of psychological needs, as noted, but the theory that has been subject to most comprehensive empirical research program is *Self-Determination Theory* (Ryan and Deci, 2017), which recognizes three basic psychological needs: autonomy, competence, and relatedness. Given that there are well-validated scales to measure these three needs translated to many languages (Chen et al., 2015) and included in international surveys (e.g., ESS, round 6; Huppert et al., 2013), measurement of autonomy, competence, and relatednesss would provide a concise way to assess the psychological need satisfaction of an individual, and through that receive key information about the person's psychological functioning and flourishing. The Basic Psychological Need Satisfaction and Frustration Scale (BPNSFP; Chen et al., 2015) is currently the most validated and utilized scale for need satisfaction. It measures the three needs with four items each, but if there is room for only 1 item per need, we recommend using the following items from the BPNSFP:

1. I feel that my decisions reflect what I really want. (Autonomy)
2. I feel confident that I can do things well. (Competence)
3. I feel close and connected with other people who are important to me. (Relatedness)

Accordingly, we argue that "the needs category provides a parsimonious set of elements at the core of the well-being construct" (Martela and Sheldon, 2019, p. 458) and thus should be included in various attempts to measure human well-being more comprehensively. Indicators of psychological need satisfaction focus on key elements of experienced well-being deeply rooted in human nature. Measuring autonomy, competence, and relatedness along with SWB in future studies of well-being would thus offer a broader view of the well-being of an individual, and help identify key ways to improve well-being in both policy and health care contexts.

Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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