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Exploring Solutions to Conceptual and Measurement Problems in the Capability Approach: the Development of the WeRFree Instrument

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Health technology assessment agencies have the task to assess the value of health technologies. In this context, some agencies use information from instruments that are completed by patients to provide evidence for the effect of health technologies. Conventional instruments that are used for this purpose have however been critiqued to be too narrow in their scope since their content is focused on measuring health-related quality of life. Proponents of the capability approach argue that health technologies have an impact on individuals' lives beyond health. They argue that health technologies improve the freedom of individuals to do and be. This freedom is also called capability. Proponents of the capability approach have developed instruments that assess wellbeing in terms of capabilities to comprehensively measure the effect of health technologies. There are however conceptual challenges in the operationalization of the capability approach into an instrument. The first study in this dissertation is a literature review of existing capability instruments to review how different authors have interpreted and operationalized the capability concept into an instrument. One conclusion of this review is that there is a large variation in how capability is measured with different instruments. Some of the content of these instruments seem to be measuring something else than capability. This results in difficulties in the interpretation of the results of these instruments. Furthermore, some instruments seem to be missing content about the burdens that people experience in their lives, such as the experience of pain. This means that these instruments might be unable to comprehensively assess the effects of health technologies. The main recommendation of this study is to use a more comprehensive and precise definition of capability to develop instruments. This would support the identification of burdens that individuals experience and facilitate a clear classification of elements of wellbeing.

Based on discussions in the literature, I propose that the concept of option freedom is such a comprehensive and precise definition of capability. This concept is operationalized into an instrument that can be used to assess capability wellbeing to illustrate the benefits of using option freedom for instrument development. The process of operationalization consists of two main stages. In the first stage, a best-fit framework synthesis was conducted to develop a theoretical framework that can be used as the basis for an instrument. In this synthesis, the concept of option freedom was applied as an a priori concept to qualitative studies that support the development of content for capability instruments. In the second stage, psychometric methods were used to develop an instrument that was based on this theoretical framework. This instrument consists of three scales that measure different elements of wellbeing. The first scale is called "Perceived Access to Options" and assesses the health-related capability of individuals to access options. The scales "Affective Wellbeing" and "Reflective Wellbeing" assess the subjective wellbeing derived from being able to exercise those options. Together, these three scales comprehensively assess capability wellbeing. This chapter illustrates the benefits of using the concept of option freedom for instrument development.

One further challenge with the use of self-report instruments is that responses might be affected by adapted preferences. Disadvantaged individuals might report being better off than one would expect. In the context of this discussion, I propose that measurement invariance analysis is a promising method to study if adapted preferences affect responses to instruments. The aim of measurement invariance analysis is to establish whether groups of people with different characteristics respond similarly to an instrument. Establishing the measurement invariance properties of an instrument between an advantaged and disadvantaged group (e.g., between healthy and diseased individuals) would indicate that responses are not affected by adapted preferences in the group that experiences disadvantages.

To conclude, this dissertation advances research in applying the capability approach in health economics in two ways. Firstly, it shows the importance of using comprehensive and precise concepts in capability instrument development, since these concepts guide what we as researchers include as the content in our instruments. Secondly, it shows that measurement invariance testing can be a useful tool in establishing whether instrument responses are unaffected by adapted preferences. These findings are directly relevant to patients, given the increasing use of capability instruments to assess the effect and value of health technologies.