Operational Definition

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**Introduction**

This paper is aimed at exploring the significance of operational definition in research methodology. Operational definition is defined as the formalized description used for defining the independent and dependent variables in the most measurable manner. It is much more than merely manipulating the variables in words rather it quantifies the variables for example individual score on Beck Depression Inventory (BDI) will be termed as the operational definition of depression that will be used to measure the prevalence and severity level of depression in desired population (Hunt et. al., 2013). This paper will utilize four different scenarios for identifying the dependent and independent variables, elucidating their prospective operational definitions and potential difficulties encountered while defining them. Moreover, a report from New York Times will be undertaken thorough discussion indicating the significance of operation definition in criminal justice system.

**Scenario 1**

A clinical psychologist would like to know whether a history of early childhood abuse is related to later vulnerability to depression, substance abuse, and addiction.

**Independent Variable**: In this scenario, early childhood abuse acts as an independent variable because it directly affects the direction and magnitude of other dependent variables. Early childhood abuse will be measured through objective questionnaires including 10 items designed in such a way that they deliberately measure all types of abusive behaviors including physical violence, negligence, inequality, verbal aggression, domestic violence, sexual abuse, bullying and child labor in dichotomous format (yes/no) hence obtained scores greater than cutting score will be termed as the “operational definition” of childhood abuse. Seemingly, this definition of child abuse is quite simple but in actual it may carry potential threats to reliability and validity of the test results. For example, a mere unintentional “bad touch” might be considered as sexual abuse by some subjects whereas on the other hand, one subject who suffered child rape can surely respond with “yes” to relevant item. Problem will arise when both the subjects will mark “yes” with varying intensity and nature of sexual abuse but their mental health deterioration will demonstrate substantial disparity. Moreover, there is an equal opportunity that one individual suffered parental negligence for some time at intermittent intervals whereas the other one encountered it on the regular basis; both will mark the response “yes” but their intensity will follow holistically distinctive patterns which in turn will correlate with the mental deterioration accordingly.

**Dependent Variable:** dependent variable for this study will be the vulnerability to depression, substance abuse and addiction. The prevalence and severity level of depression will be measured through Beck Depression Inventory (BDI) such as 0-13 indicates minimal, 14-19 mild, 20-28 moderate whereas 29-63 indicates severe depression. On the other hand, Drug Use Disorder (DUD) questionnaire (a 14 item scale) scores will indicate the prevalence and severity of drug addiction. Hence, scores of prospective instruments will comprise the operational definitions of depression and drug addiction.

**Scenario 2**

A cognitive psychologist would like to find out whether more extensive education might protect individuals from dementia and related disorders later in life.

**Independent Variable:** this will be the longitudinal experimental study. More intensive education will be the independent variable that will be manipulated by researchers to study the effects on dependent variables. Here, more intensive education can be manipulated as the weekly educational sessions of subjects who are at the risk of developing dementia in later life. Subjects will undergo weekly educational series including its risk factors and psychotherapeutic and pharmacological management interventions. This definition of “intensive education” is quite easy to develop however it will take appropriate and consistent efforts to be administered in long run.

**Dependent Variable:** dementia and other neurological disorders are dependent variables here. Dementia Rating Scale will be used to determine the prevalence of its symptoms along with the neurological assessments. Hence, the operational definition of dementia will be “the scores of subjects on dementia Rating Scale (DRS)” whereas the operational definition of other disorders such as Alzheimer’s disease and Parkinson’s disease will be measured through their prospective psychometric instruments. The difficulty level here is quite low because Rating Scales will be having items concerning all the associated symptoms of dementia with their frequency.

**Scenario 3**

An educational psychologist is studying the effectiveness of a special program for teen parents. The program provides education and support related to parenting skills and career goals. He wants to know whether participants’ school performance and psychological health will improve.

**Independent Variable:** special educational program is an independent variable here because its effects will be seen on the school performance and psychological health of teen parents. Special education program will include weekly sessions of teen parents through appropriate audio-visual aids and instructional methodology. They will be educated regarding effective parenting skills and their own career goals. The operational definition of this independent variable is quite straightforward and less painstaking because it revolves around administering the desired program.

**Dependent Variables:** dependent variables of this study include psychological wellbeing and school performance of the teen parents after they undergo specialized educational program. Psychological wellbeing will be measured through *Ryff’s Scale of Psychological Wellbeing* whereas their school performance will be measured in terms of their grades in the most recent exam. Developing these operational definitions is quite easy for the researchers because standardized instruments are available to measure abstract phenomenon—the psychological wellbeing whereas their performance can be measured in terms of their GPA, percentage or grade in the previous exam. It will have strong reliability however the effects of extraneous variables such as intelligence, resilience, coping skills and genetic predispositions of acquiring illness might threaten the validity of results.

**Scenario 4**

A social psychologist is interested in the relationship between religiosity and marital satisfaction.

**Independent Variable:** Religiosity is the factor that will be seen to have substantial effects on the marital satisfaction hence it will be termed as an independent variable. Needless to say, religious beliefs vary religion to religion where religious orientation is also highly individual specific in nature. There is no universally accepted measuring instrument for religiosity and hence self-developed methods are used to measure this factor. The operational definition, in this case, will be the self-evaluation of subjects; either they consider themselves religious or not. Question will be asked regarding low, moderate and high religiosity of theirs. Hence, determination of operational definition for religiosity will offer less laborious efforts but will act as a potential threat to generalizibility because definition of this concept has imminent cultural variations.

**Dependent Variable:** marital satisfaction is indeed the dependent variable of this study. In this study, it will operationally be defined as the minimal instances of conflict between married couples which generates the sense of contentment and commitment in a long run. It will be measured through Marital Satisfaction Questionnaires having items regarding parenting, leisure actions, sexual life, conflict management techniques, financial administration, egalitarian role and relationship with family and friends. Hence it is less difficult to determine the operational definition of Marital Satisfaction because of available relevant literature.

**Psychology in the News**

In the news article, *For the Worst of Us, the Diagnosis May Be 'Evil'* written by Carey B., two various operational definitions of the word *evil* were used; 20 item personality test having pathological lying, glibness, grandiose, self-worth, superficial charm, emotional vacuity, and proneness to boredom related items whereas the other operational definition included the hierarchy of evil behaviors obtained from 500 case studies. Hence, based on the nature of study and research objectives, two different definitions of evil were presented by researchers.

Evil is an abstract term, highly subjective and culture specific in nature. In some cultures, evil is said to be a general trait including an intention to harm others deliberately whereas in some cultures, a man who does wrong for the sake of good cannot be said evil. Hence, this term offers substantial difficulty in providing a universally accepted definition of evil across the cultures. As this article demonstrates that psychologists presented various views about evil behavior; some attributed it as a personality trait that one acquires in a predisposed manner whereas others term it as an expression of sedation, passive aggression and displacement of frustration (Carey, 2005). The former ones believe that evil is strongly interlinked to the unconscious motives of humans that they are primarily unaware of and that lie in their childhood experiences hence accusing the ones who commit something evil and punishing the ones who possess uncontrollable urges must be reconsidered. Hence, the conceptualization of evil itself acts as an *apple of discord* between psychologists of multiple disciplines.

As mentioned earlier, defining the terms operationally offers many challenges such as universality, validity, reliability and generalizibility concerns (McLeod, 2013). For example, two researchers intend to explore the relationship between aggression and hunger. One researcher defines aggression as “the number of punches that subjects strike on a punching box” whereas the other one defines aggression as the scores of subjects on psychometric tests. The former one finds out that there was found a negative correlation between hunger and aggression even it was expected that both are positively correlated. On the other hand, the self report inventories explored the positive correlation between aggression and hunger hence operational definitions make a great difference.

References

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