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Measuring Learned Helplessness: A Psychometric Approach

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Abstract

Learned helplessness, a well established principle in Psychology is a cognitive state of an individual that makes him/her believes that nothing he does can change his/her situation. Owing to the absence of a direct psychometric-based measure of learned helplessness, this study developed a scale to measure the construct and assess individual's tendency to develop learned helplessness using 500 randomly selected participants. This is a 6-item self-report scale in the Likert format and with 5-point response options ranging from strongly disagree (1) to strongly agree (5). The scale yielded a Cronbach Alpha of 0.69, Spearman-Brown Coefficient of 0.66 and Guttman Split-Half Reliability Coefficient of 0.65. Factor analysis using Principal Component Analysis (PCA) showed that all the items loaded as one factor with eigenvalue of 2.37. From the findings, it was concluded that this scale is useful in measuring the cognitive tendency of individuals to develop learned helplessness in a general population.

Key words: Learned helplessness, Reliability, Psychometric, Eigenvalue

Introduction

Learned helplessness as a construct is a well established principle in the field of Psychology. It was originally developed by Seligman (1965) but has since been extensively researched into over the years (Peterson, Maier & Seligman, 1993; Olapegba, 2008; Comer, 2004). Traditionally, the construct of learned helplessness offered a model to explain human depression, a situation whereby apathy and submission prevail and causing individuals to rely fully on others for help. Following the pioneering effort of Seligman in 1965, a number of researchers have attempted to concretely conceptualize the construct. Myers (2002) defines learned helplessness as the hopelessness and resignation learned when a human or animal perceives no control over repeated bad events. In corroborating this definition, Olapegba (2008) stresses that emphasis is on the cognition of the individual involved; in other words, the fellow perceives that s/he has no control over the events and goes ahead to resign to "fate" giving up every attempt to turn the situation around.

In a similar attempt, Comer (2004) defines learned helplessness as the perception, based on past experiences, that one has no control over one's reinforcements. Similarly, Smith (2001) says learned helplessness is a phenomenon in which individuals gradually, usually as a result of repeated failures or control by others, become less willing to attempt tasks. These definitions clearly see the victim as the determining factor in the scenario, meaning that it is his/her perception and conclusion of the situation on ground that really determine whether or not learned helplessness will set in, a situation that Seligman (1965) says can lead to depression. Invariably, the definitions of learned helplessness suggest that what people believe determine their behaviour.

One obvious fact from the literature of learned helplessness is that it is a learned phenomenon, researchers have submitted that both human and animals can learn to become helpless the same way they learn other things in life. Abramson, Seligman and Teasdale (1978) and Seligman (1992) submit that how people attribute the events that occur in their lives have significant effect on their attitudes and efforts in improving their lot. They identify three types of beliefs that affect them:

- Stable or unstable cause: if one believes that events are caused by factors which do not change, one assumes that it is not worth trying to change them. So if I believe my success is based on an unchangeable ability, it will seem that it is not worth my trying to improve myself.
- Internal or external cause: people can believe that events are caused by themselves or something outside of themselves. If one assumes a serious car crash was one's fault, one will be less likely to drive again than if one attributes it to a greasy road.
- Global or Specific cause; if one believes that events are caused by a large number of factors then one feels he/she can do less to change things than if one sees few and specific causes.

In spite of the prominent nature of learned helplessness as a psychological construct, measurement has posed quite a challenge. Earlier research efforts have largely adopted laboratory experiments to study the construct both in humans and animals (Seligman, 1965; Seligman, 1990; Smiley & Dweck, 1994; Thorton & Powell 1974). The problem with laboratory experiments has to do with limited external validity, in other words generalizing the findings to situations outside the laboratory have always been controversial. Comer (2004) gave three major criticisms of this approach in studying learned helplessness. One, the characteristics of the assumption do not

apply to everyone in every situation, for example, laboratory shocks always produce anxiety along with helplessness, but anxiety does not always occur alongside human depression. Secondly, much of the learned helplessness theory is built on research conducted on animals, thus, the results may not always be transferred to human experiences. And third, the question arises as to if animals are even capable of attributing a lack of control to global, internal, or stable causes.

Also, a previous attempt to use self-report scale to measure learned helplessness has also been seen as lacking in validity. In a study by Donovan, Leavitt & Walsh (1990) learned helplessness in children was measured in a manner that can be regarded as indirect. In the study, the authors used Intellectual Achievement Responsibility Scale (IAR; Crandall, Katkovsky, & Crandall, 1965), the Children's Ability-Effort Scale (CAES), and the Student Behavior Checklist. The titles and contents of these scales cannot be said to adequately measure learned helplessness, rather they measure other behavioral dispositions from which the authors are making inferences of helplessness. The criticisms of the laboratory approach and the validity deficiency of the earlier self-report attempt motivated this study; to develop and validate a generic and psychometric-based scale that will measure learned helplessness and its tendency.

Methods

This is a cross-sectional survey: a self-report questionnaire was administered to participants across strata and settings.

Participants

Participants in the study were made up of five hundred (500) males and females drawn from Lagos and Ibadan using convenient sampling technique. Ages of the respondents ranged from 15 to 66 with a mean age of 28.6 and standard deviation of 8.1. Males were 263 (52.6%) while females were 237 (47.4%). On

educational qualifications, 187 (37.4%) had Ordinary'level certificate, 128 (25.6%) National Certificate of Edecation (NCE)/ National Diploma (ND) certificate holders, 143 (28.6%) were Higher National Diploma (HND)/B.Sc holders, while 12 (2.4%) had higher degrees. Regarding ethnic considerations, 359 (71.8%) were from the Yoruba ethnic group, 104 (20.8%) were Igbos, 5 (1.0%) were Hausas, while 29 (5.8%) were from other ethnic groups. 192 (38.4%) of the respondents were married, 292 (58.4%) were single, 8 (1.6%) were divorced, 4 (.8%) were widowed, while 4 (.8) were separated. In terms of occupation, 78 (15.6%) worked in the organized private sector, 71 (14.2%) were in the public sector, 156 (31.2%) were in the informal sector (traders, artisan, cottage business etc), while 181 (36.2%) were students. Christians made up 346 (69.2%) of the participants, Muslims were 149 (29.8%), while 5 (1.0%) belonged to other religions.

Measure

Generation of items to be included in the scale was done through extensive search of literature on learned helplessness. This was complemented by interview where people were asked to define and give a general idea of what they think learned helplessness is all about. These processes yielded a pool of 16 items which were subjected to content validity using experts to rate the appropriateness of the items in the pool (Cronbach, 1971, Nunnally, 1978, Okurame, 2002). From the outcome of the content validity, 7 items with 80% and above support were retained. These 7 items were put in a questionnaire using the Likert format with response option ranging from strongly disagree (1) to strongly agree (5). The scoring direction indicates that the higher the score, the more the learned helplessness.

Procedure

This study was in two phases: the first phase was a pilot which involved generation of scale items from literature and interview to

also generate additional items. Items generation was followed by content validity with the use of psychologists across various arms of the discipline as experts. The items retained through the pilot study were compiled into a questionnaire and taken to the field for the main study. Questionnaires were administered in a cross-sectional survey in Lagos and Ibadan. Participants' informed consent was sought (verbally) with information that they were not under any obligation to participate, those who agreed to take part in the study were assured of absolute confidentiality and that the study was free of any harmful consequences. Questionnaires were administered to participants homes, some in their respective offices while others were administered in schools.

Results

Result from the pilot study showed that the original 16 items in the pool reduced to 7 items after the experts rated them for appropriateness in measuring learned helplessness. Specifically, items that 80% of the experts judged as valid in measuring the construct were retained for the next stage (this is as used in literature e. g. Okurame, 2002; Nunnally, 1978). To establish the reliability of the scale, item analysis of the responses of participants to the 7-item scale was carried out. The result showed that the scale has Alpha Reliability Coefficient of 0.68. However, one of the items which loaded below 0.30 was deleted (Pedhazur, 1982; Olapegba, 2008) the Alpha Coefficient increased to 0.69 with Guttman Split-Half Coefficient of 0.65 (part 1=.59, part 2=.51), Spearman-Brown coefficient of 0.66 and correlation between forms of 0.49.

The scale was then subjected to factor analysis using Principal Component Analysis (PCA) and this showed that all the six items loaded as one factor with eigenvalue of 2.37 and cumulative percentage variance of 39.44 (see appendix). The scoring dimension indicated that the higher the score the higher the learned helplessness.

Insert table at about here

Discussion

The purpose of this study was to develop and validate a measure of learned helplessness with a psychometric basis for the general population. This was informed by the fact that laboratory measure and manipulation of learned helplessness has serious limitation when it comes to generalizing to other situations; many at times, conditions in the real world cannot be adequately controlled and as such other variables can interfere with observations under experimental situations. Also, the earlier attempt at self-report in measuring learned helplessness did not actually measured the construct rather; other constructs were measured while inferences were just made regarding learned helplessness (Donovan, Leavitt & Walsh, 1990). The present scale has the advantages of identifying individuals already manifesting learned helplessness and those with the tendency to manifest it.

Statistical analysis in this study has shown that this scale is a valid measure of learned helplessness in a general population. Validity was established via the content approach whereby experts were asked to rate the appropriateness of each item on the scale (Cronbach, 1971; Okurame, 2002; Olapegba, 2008; Nunnally, 1978). All the items included had at least 80% agreement of the experts. This is in line with the submission of Yu (2005) that content validity is established by content experts and evidence is obtained by looking for agreement in judgments. In distinguishing between content validity and face validity, Yu (2005) argued that face validity can be established by one person but content validity should be by a panel of experts working independently. In line with this argument, the present scale can be said to be a valid measure of learned helplessness using content validity approach.

In terms of the scale's reliability which is the consistency of measure, analysis indicated that the original 7 items yielded Alpha Coefficient of 0.68 which increased to 0.69 when one of the items

with a loading below 0.30 (Okurame, 2002; Pedhazur, 1982)was deleted. In addition, Guttman Split-Half Coefficient was 0.65, Spearman-Brown 0.66 while correlation between forms was 0.49. These psychometric properties clearly showed that this scale is a very reliable measure of learned helplessness. This finds corroboration with the assertion of American Educational Research Association, American Psychological Association, and National Council on Measurement in Education (1985) that a reliable measure should demonstrate form equivalence and internal consistency. This means that the scale is not subject to random fluctuations rather; it will yield consistent responses across time and situations.

Results of the factor analysis showed that the 6 items were extracted as one factor (see appendix). This is a strong indication that all the items measured learned helplessness as a composite construct and as such the scale cannot be broken down into sub-scales. A look at the factor loading also showed that all the items loaded between 0.49 and 0.70 (see appendix) indicating the strength of the items.

From the result, it is clear that this scale is a valid measure of learned helplessness as a psychological construct. This can be useful in counseling and clinical setting in identifying individuals with learned helplessness and those with tendency to develop it, this will have implication for timely and adequate intervention. The scale can also be used for research purpose in surveys to determine the incidence and prevalence of learned helplessness in a given environment. Meanwhile, further study can explore a cross-cultural validation and standardization of this scale in order to significantly enhance external validity.

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Appendix

Table 1.0. Component Matrix of PCA for the 6 Items

S/N	Learned Helplessness Items	Loading
2	Disaster in life is inevitable, one should expect it.	.70
3	Life is generally unfair	.68
4	Success in life is a matter of luck.	.66
6	It is not possible to avoid evil because God created both good and evil.	.63
1	One should take life as it comes.	.59
5	It is pointless fighting a stronger opponent.	.49
	Eigenvalue	**2.37**
	Percentage of Variance	**39.4**
	Cumulative Percentage	**39.4**