

“Modified Delphi Technique: Content Validity of The Burnout Syndrome Assessment Scale”

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Abstract

Background: A stressful lifestyle of individuals can put them in extreme pressure which leads to feeling exhausted, empty, burned out, and unable to cope with the stressful situation. Stress due to occupation can cause both physical as well as psychological symptoms. Burnout syndrome is a psychological concept for the experiencing long term exhaustion and diminished interest (depersonalization), usually in the work context. The health care professionals are more prone to develop the burnout syndrome due to workload at the workplace.

Objective: The present study aimed to development of burnout syndrome assessment scale for nurses. To establish content validity for self-developed burnout syndrome assessment scale.

Methodology: Modified Delphi technique used for content validity. The scale was evaluated by 11 experts from different institutions. Complete three Delphi rounds were completed for content validity. Content Validity Performa developed by Davis 1992 which was having 22 items was circulated to 11 panels of experts from which 7 experts responded.

Results: The content validity of the items was checked by dichotomizing the ordinal scale into relevant and not relevant. The I-CVI ranged from 0.72 to 1. The content validity of scale came out to be 0.93. Values of CVI higher than 0.78 are considered to be having good content validity.

Conclusion: The study concluded that Burnout Syndrome Assessment Scale has good content validity.

Keywords: Assessment scale, Burnout syndrome, Burnout syndrome assessment scale, Content validity, Content validity index, Modified Delphi technique, Validity

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I. Introduction

A stressful lifestyle of individuals can put them in extreme pressure which leads to feeling exhausted, empty, burned out, and unable to cope with the stressful situation. Feeling either permanently overworked or under-challenged, being under time pressure, or having conflicts with colleagues are possible causes of burnout syndrome.¹After many discoveries related to the burnout syndrome, many questions of development of burnout is still unanswered like Is the burnout syndrome is high level stress or the complex interaction between the social factors (circumstances) and the individuals factors (behaviour).²Burnout syndrome is a multifactorial health problem among the professionals. Burnout syndrome is considered as the psychological problems and during diagnosis it overlaps with the other psychological problems like depression.³Intensive care unit nurses and emergency nurses sometime leave their profession due to ICU is a stressful area to work, patient mortality and morbidity is high, and some ethical dilemma that faced by nurses while providing care, and a tension-charged atmospheres. Because of all these problems nurses develop many psychological problems like anxiety, burnout syndrome, post-traumatic stress disorders, frustrations, and depression.⁴

II. Materials And Methods

This methodology study conducted at all India institute of medical sciences jodhpur, Rajasthan, India from September 2017 to march 2019 in this time content validity of the scale was done from march 2018 to march 2019. Blue print of preliminary draft was prepared under five steps:

Review of literature: After thorough review of literature with different headings related to burnout syndrome and its prevalence, associated factors, related to models of burnout syndrome and also reviewed the previously available measures to assess the burnout syndrome.

Assessment of current practices: Current practices related to burnout syndrome were assessed by asking about burnout to nurses working in Emergency and ICUs. Information also collected from the supervisors of the respective area. As conclusion currently no practices were going on to assess the burnout syndrome in the nurses by the institution.

Focused group discussion: Focused group discussion conducted with 6 nurses working in ICUs and Emergency department of All India Institute of Medical Sciences, Jodhpur, Rajasthan, India. discussion conducted with Focused Group Discussion Guide which contains 8 questions and responses recorded manually.

Generation of item pool: An exhaustive list of manifestations and impacts of burnout syndrome were prepared with the help of review literature; focused group discussion; previously available measurement tools: Maslach burnout inventory, Copenhagen burnout inventory, and Oldenburg Burnout Inventory; and expert’s opinion. Identified items categorized in some domains like psychophysical, personal, and professional and some items put into miscellaneous categories and pooled these all items together.

Preparation of preliminary draft: The blueprint of preliminary draft of Burnout Syndrome Assessment Scale (BOSAS) has been prepared with 30 selected items under four domains i.e. Psychophysical, Personal, Professional, and Miscellaneous. The scoring keys were developed to use the scale and each item’s scoring as: Always (3), Sometimes (2), Never (1). The highest score is 90 and lowest score is 30.

VALIDATION OF FIRST DRAFT AND SUBSEQUENT DRAFTS OF BURNOUT SYNDROME ASSESSMENT SCALE

The modified Delphi technique was used to content validation of the first draft. Eleven panels of experts were selected from the different institutions.

The Delphi technique was selected to obtain expert input from individuals who were widely dispersed geographically. The modified Delphi technique is similar to the full Delphi in terms of procedure (i.e., a series of rounds with selected experts) and intent (i.e., to predict future events and to arrive at consensus). The process of modified Delphi technique begins with a set of carefully selected items.⁵

The first draft of the tool was circulated among 11 experts for the content validation of BOSAS scale. As per the expert’s opinion the modifications in the scale were made. Three rounds of modified Delphi technique were completed.

Modifications done after first modified Delphi round:

Modifications were done in the first draft as per the majority of the expert’s opinion. Following suggestions were incorporated in the tool:

Instruction note added as: “The scale statements are formed to assess the burnout syndrome among the nurses working in ICU and emergency. There are no right or wrong answers. Please read each statement carefully and put a tick mark on the appropriate place which indicates how frequently you are experiencing burnout symptoms. Anonymity and confidentiality of your responses will be maintained”.

As per the expert’s suggestions and the duplication / overlapping of the domain statements, domains were modified from four to three i.e. personal, professional, and miscellaneous.

There are some statements in the domains of the scale, those meaning overlapping with another domain statement were modified and merged in the more suitable domain and some new statements added on the basis of clinical manifestations of burnout syndrome.

Modifications done after second modified Delphi round:

Instruction note modified as: “The scale statements are formed to assess the burnout syndrome among the nurses working in ICU and emergency. There are no right or wrong answers. Please read each statement carefully and put a tick mark on the appropriate place which indicates how much the statement applied to you and your response will indicate how frequently (since last 6 months) you are experiencing burnout symptoms. Anonymity and confidentiality of your responses will be maintained. While working in the ICU/emergency I feel.....”

As per the expert’s suggestions and the duplication / overlapping of the domain statements, domains were modified from three to two domains as personal and professional.

Scoring keys modified from three point to five point as: Always (4), Often (3), Sometime (2), Rarely (1), and Never (0).

Some items from the second draft were deleted as they overlapped with other items and meaning were the same in some items. Items from the miscellaneous domain were more concerned on impact of the burnout, those were deleted and suitable one moved in the suitable domain as personal and professional. Total 22 items were retained.

Modifications done after third Delphi round:

There was no such correction given in the third Delphi round. Little modifications were done after this round as one item moved to the professional domain from personal. From professional domain 2 items were deleted seams they were not suitable in scale. Final draft of BOSAS has been prepared.

Final draft contains two domains namely: personal and professional domain. Each domain contains 10 items. Scoring key was developed as Always (4), Often (3), Sometimes (2), Rarely (1), and Never (0). Levels of burnout identified as No Burnout ≤ 20 $\leq 25\%$ Mild Burnout 21 – 40 26–50% Moderate Burnout 41 – 60 51–75% Severe Burnout 61 – 80 $>75\%$. Levels of burnout have been formed on the basis of percentage distribution to each category. There are four levels of burnout developed. With increasing the score on tool level burnout syndrome is also increasing.

Ethical clearance has been obtained from the Institutional Ethical Committee, AIIMS Jodhpur, Rajasthan, India. (Certificate reference number- AIIMS/IEC/2018/524)

III. Results

Content validity of the scale was calculated by evaluation of the BOSAS by panel of experts. Evaluation of scale was done through Content Validity Proforma which was developed by Davis in 1992 under the 4 relevancy criteria for each item in scale: highly relevant (4), quite relevant (3), somewhat relevant (1), and not relevant (0). Scoring was done by dichotomizing these four criteria in relevant (1) which includes highly relevant (4) and quite relevant (3); and not relevant (0) includes somewhat relevant (1) and not relevant (0). On the basis of 7 expert’s evaluation content validity index (CVI) was calculated for the items (I-CVI) and for the scale (S-CVI). The mean I-CVI of items is 0.93, S-CVI/UA is 0.60, and S-CVI/Ave is 0.93.

IV. Discussion

Copenhagen Burnout Inventory (CBI) which was developed in Denmark by Tage S. Kristensen, Marianne Borritz, Ebbe Villadsen, & Karl B. Christensen in 2005. CBI is a questionnaire with three sub-dimensions: Personal burnout, work-related burnout, and client-related burnout. There is 19 items in this scale.⁶ Another instrument was developed by Christina Maslach, Jackson SE, Michael P. Leiter to measure burnout in individuals who work with people (human services professions) named as Maslach Burnout Inventory – Human Services Survey (MBI-HSS) released in 1981. Included three domains i.e. emotional exhaustion, depersonalization and, personal accomplishment.⁷

V. Conclusion

There are total 20 items in the scale categorized in two domains namely personal and professional burnout. Content Validity Index was calculated for Content Validity which was 0.93, indicates good content validity of the Burnout Syndrome Assessment Scale.

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