

Development of Directive Screening of Heart Health Assessment (DiSHHA) for Identifying Cardiovascular Risk among People Residing in Community: A Feasibility Study

PRIYANJALI SHARMA¹, JYOTI PHOUGAT², JYOTI SARIN³

ABSTRACT

Introduction: Cardiovascular Diseases (CVDs) are a major cause of illness and death worldwide. Early identification of risk factors using a standardised assessment tool helps in prevention and timely management of heart diseases. Therefore, the DiSHHA tool was developed to identify cardiovascular risk and promote better heart health among individuals attending screening centres.

Aim: To develop and validate Directive Screening of Heart Health Assessment (DiSHHA) tool for identification of cardiovascular risk among adults residing in selected community of Ambala, Haryana.

Materials and Methods: A methodological research approach was adopted for the development and validation of the DiSHHA tool. The preliminary version of the tool consisted of six domains related to anthropometric measurements, individual and family history, dietary pattern, physical activity, pharmacological history, and biophysical measurements influencing cardiovascular health. Content validation of the tool was carried out using the Modified Delphi Technique with a panel of 15 experts from the fields of cardiology, medical-surgical nursing, and community health nursing. More than 80% consensus was achieved after 4 Delphi rounds, and the final version of the tool was prepared. After content validation, the final draft of the DiSHHA tool consisted of seven domains i.e., anthropometric measurement, individual history, biophysical measurement, daily living activity, dietary pattern, substance abuse, and pharmacological history. A pilot study was conducted among 30 adults selected from the

community settings of Ambala, Haryana, to determine the feasibility and applicability of the tool. Data were collected through interview method, self-report technique, and biophysical measurements. Content validity and face validity were established through expert opinion, and Content Validity Index (CVI) was calculated. The finalised tool was administered among adults in selected settings to determine its feasibility and applicability. To assess the internal consistency of the tool, Cronbach's alpha coefficient was calculated, which indicated good reliability of the instrument.

Results: DiSHHA revealed satisfactory content validity (I-CVI=0.91; S-CVI=0.83), internal consistency (Cronbach's alpha=0.744). Concurrent validity with FRS showed a strong positive correlation ($r=0.718$, $p=0.001$). The Kaiser-Meyer-Olkin (KMO) value of 0.500 and significant Bartlett's test ($p=0.001$) confirmed adequacy for factor analysis. The optimal cut-off score >0.5 showed sensitivity of (0.895), specificity of (0.0909). The Exploratory Factor Analysis (EFA) revealing a 7-factor structure explaining significant variance and supporting satisfactory construct validity for DiSHHA.

Conclusion: The findings of the study revealed that the DiSHHA tool is a reliable and valid instrument for directive screening of heart health and can be effectively used by healthcare professionals, particularly nurses, for early identification and prevention of cardiovascular diseases.

Keywords: Content validity index, Exploratory factor analysis, Kaiser-Meyer-Olkin.

PARTICULARS OF CONTRIBUTORS:

1. Student M.Sc. Nursing, Maharishi Markandeshwar College of Nursing, Maharishi Markandeshwar (Deemed to be University), Mullana, Ambala, Haryana, India.
2. Associate Professor, Maharishi Markandeshwar College of Nursing, Maharishi Markandeshwar (Deemed to be University), Mullana, Ambala, Haryana, India.
3. Principal cum Professor, Maharishi Markandeshwar College of Nursing, Maharishi Markandeshwar (Deemed to be University), Mullana, Ambala, Haryana, India.

NAME, ADDRESS, E-MAIL ID OF THE CORRESPONDING AUTHOR:

Ms. Jyoti Phogat,
Associate Professor, Maharishi Markandeshwar College of Nursing, Maharishi Markandeshwar (Deemed to be University), Mullana, Ambala-133207, Haryana, India.
Email: Jyotiphogat01@mmumullana.org