

Development of A Content Validated Tool to Reveal Knowledge, Attitude and Practice Regarding Supplement Use Among Players and Fitness Freak People

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ABSTRACT:

Like other developing countries, Indians have also rushed with fast lifestyles in recent years. As per trends, young people mainly go to the gym for abs & to tone their body, particular in the age group of 20-30 years. Unreliable products are available and sell in the market, so there is a strong demand for these supplements to be carefully checked to determine the quality and safety of the dietary supplements. To create more awareness among the youth and players there is a need of structured validated questionnaire (tool) was formed having its content and face validity, which help the professionals during counselling and to understand the perspective in depth. **Methods.** The initial questionnaire was developed by the consensus panel, based on a literature review, and adjusted to fit the content domain. The questionnaire tool was developed under four subdomains, for example, demography, Knowledge, attitude and practice regarding supplement use. The Questionnaire was tested from 5 Technical Experts (Nutritionist) in this Initial Phase of Construction of Questionnaire. Modifications were done according to the valuable feedback from the experts. The Modified Questionnaire was again assessed by 10 experts which include Nutritionist, Psychologist, Doctor, Biochemist, Physiologist, Gym Trainers and Coaches. In this Stage, deep insight was provided by experts. Few minor changes /modifications were suggested by experts. **Results:** I-CVI Score- Item level content validity Index and S-CVI- Scale level Content validity Score was tested for the pool of 50 questions/items which is 0.704. The score for Content Validity should be 1, if tested from 5 or a smaller number of experts. The table clearly representing the Score of Content Validity is not 1 which is not significant. In the final phase, after modification in stage 2, The I-CVI and S-CVI obtained after analysis are 0.89 and 0.89 respectively. When there are nine or more experts to validate the questionnaire, the content validity score should be 0.78 or more. The Content validity obtained from the results is 0.89, which indicates that the results are highly significant.

Keywords: Content validity, Questionnaire, Supplement

INTRODUCTION

Like other developing countries, Indians have also rushed with fast lifestyles in recent years. As per trends, young people mainly go to the gym for abs & to tone their body, particular in the age group of

20-30 years. There is a striking growth in the use of dietary supplements among athletes. Players use modern and innovative methods in their training programs to achieve maximum of the abilities to perform and the competitive spirit from the very early age of their life (Knapik J (2016).

Unreliable products are available and sell in the market, so there is a strong demand for these supplements to be carefully checked to determine the quality and safety of the dietary supplements. Consumers often do not have enough knowledge about dietary supplements and their use and interaction with other food substances, and they often use them without consulting any health care professionals (Sood, 2008 and Tsai, 2012). Insufficient knowledge is the main cause for the use of supplements among the youth. A study by Farah Kais Alhomoud (2016) mentioned that awareness of dietary supplement use and information should be integrated into everyday practice. There is a continuing need for dietary supplements consumers to be educated for better understanding of the appropriate use of dietary supplements. Education regarding the types, uses and dosage of the dietary supplement is a key to suppress the improper consumption of supplements among youth. In western countries, various studies have been done on knowledge, attitude and practice regarding the use of dietary supplements. Knowledge, Attitude and Practice (KAP) studies done earlier states the same conclusion that there is need to educate consumers regarding the use of dietary supplements and to aware them about the various health issues come from the improper use of the supplements (Owens, 2014)

All these studies use the semi structured or anonymous and unvalidated questionnaire to assess the knowledge of the people regarding dietary supplements. No proper validated tool is available to assess the knowledge, attitude and perception behind the use of supplements.

To create more awareness among the youth and players there is a need of structured validated questionnaire (tool) was formed having its content and face validity, which help the professionals during counselling and to understand the perspective in depth.

Material and Methods: -

The study is designed to develop and validate a tool which is in the form of the written questionnaire. The questionnaire will include certain sets of questions on Knowledge, attitude and practices regarding the use of supplements.

Table 1-Development of a Tool

Planning the test	Identifying domains to evaluate the use of supplements- important domains regarding use of supplements were selected from the qualitative interview from the players and the fitness freak people
Writing the Items-	Generation of questions under each Domain- Multiple questions were framed under each domain which are derived from the initial data collected. A structured questionnaire will be prepared at this stage.
Preliminary try out	questionnaire content analysis panel -A Panel consisting of five experts from the concerned arenas assessed the content of questionnaire
Secondary try out-	Content analysis by subject experts- Developed questionnaire was sent to academic experts to analyze the content of the questionnaire.
Modification of content after expert suggestions	Content validity index (CVI) of all the questions was calculated. Questions whose CVI score less than 0.78 was removed for further analysis. Based

	upon the panel feedback to add, delete and modify questions, revision was made to absorb maximum relevant questions.
Final questionnaire development	A full structured questionnaire will develop after completing all the above steps.

The experts are encouraged to provide verbal comment or written comment to improve the relevance of items to the targeted domain. All comments are taken into consideration to refine the domain and its items. The CVI score was calculated for each item, the number of experts who rated the item as 3 or 4 (i.e., relevant or highly relevant) is divided by the total number of experts. Degree of Relevance on the basis of scale. 1 = the item is not relevant to the measured domain, 2 = the item is somewhat relevant to the measured domain, 3 = the item is quite relevant to the measured domain, 4 = the item is highly relevant to the measured domain.

Table 2: The number of experts and its implication on the acceptable cut-off score of CVI

Number of experts Acceptable	CVI values	Source of recommendation
Two experts	At least 0.80	Davis (1992)
Three to five experts	Should be 1	Polit & Beck (2006), Polit et al., (2007)
At least six experts	At least 0.83	Polit & Beck (2006), Polit et al., (2007)
Six to eight experts	At least 0.83	Lynn (1986)
At least nine experts	At least 0.78	Lynn (1986)

Statistical Analysis

Appropriate Statistics was applied related to content validity index.

Results

Stage 1-The initial questionnaire was developed by the consensus panel, based on a literature review, and adjusted to fit the content domain. The questionnaire tool was developed under four subdomains, for example, demography, Knowledge, attitude and practice regarding supplement use. The development of the questionnaire was an iterative process focusing on the content, clarity and comprehensiveness of the final questionnaire. The content representation of the items was decided on the basis of their sensitivity to reflect, sample and measure the respective subdomain. The Questionnaire was tested from 5 Technical Experts (Nutritionist) in this Initial Phase of Construction of Questionnaire. Two forms of CVI (Content Validity Index), in which CVI for item (I-CVI) and CVI for scale (S-CVI) was calculated and comes out to be 0.70 respectively. The score for Content Validity should be 1, if tested from 5 or less number of experts. The table clearly representing the Score of Content Validity is not 1 which is not significant. This shows that there is scope of Modifications. The experts suggested further modifications, replacement, language alignment, addition and to give meaning/significance of the questions.

Stage 2 Final Questionnaire Development- It was documented that in previous stage that the questionnaire was not significant and assessed by only 5 experts. The Modified Questionnaire was again assessed by 10 experts which include Nutritionist, Psychologist, Doctor, Biochemist, Physiologist, Gym Trainers and Coaches. In this Stage, deep insight was provided by experts. Few minor changes /modifications were suggested by experts. The Compliance of the experts to review the questionnaire was 100%.

The content validity of the knowledge questionnaire regarding supplement use was calculated. The I-CVI and S-CVI obtained after analysis are 0.89 and 0.89 respectively. When there are nine or more experts to validate the questionnaire, the content validity score should be 0.78 or more. The Content validity obtained from the results is 0.89, which indicates that the results are highly significant.

The content validity of the attitude and Practice questionnaire regarding supplement use was calculated. The I-CVI and S-CVI obtained after analysis are 0.87 and 0.86 respectively. When there are nine or more experts to validate the questionnaire, the content validity score should be 0.78 or more. The Content validity obtained from the results is 0.87 & 0.86, which indicates that the results are highly significant.

Table 3 Comparison of CVI between the Initial and Final Questionnaire

<i>Headings</i>	No. of Questions/ Items in Initial Questionnaire	No. of Questions/ Items in Final Questionnaire
<i>General Infor.</i>	11	11
<i>Knowledge regarding supplements</i>	7	29
<i>Attitude & Practice regarding supplements</i>	32	30
<i>I-CVI Score</i>	0.70	0.89**
<i>S-CVI Score</i>	0.70	0.89**

The above Table Represents the comparison of CVI between the Initial and Final Questionnaire. The Results Indicates that the number of from initial questionnaire to final questionnaire has increased due to the valuable and expertise suggestions of the experts. The result clearly indicates the content validity Index has changed significantly from 0.70 (which is not significant) to 0.89 (which is highly significant).

Discussion

The present study was performed to develop a validated tool to reveal the knowledge, attitude and practice regarding the supplement use among players and fitness freak people. The result shows that the comparison of CVI score between the initial and final questionnaire. In Initial phase, the CVI score found to be not significant. As Modified later in the later stages, the CVI Score found to be highly significant. It was concluded from the study that a fully reliable scientific tool is developed after applying all the statistics and techniques which will be helpful for assessment of the players and fitness freak people regarding supplement use.

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